

PSYCHOLOGICAL ABSTRACTS

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GENERAL

3107. Bartholomew, W. T. A technique for the taking of long oscillograph records. *J. Exper. Psychol.*, 1933, 16, 306-323.—The author describes an apparatus for taking long oscillograph records at high film speeds. The method comprises a belt driven by a drum over another (idle) drum, in front of which an oscillograph is placed, so that the light from the oscillograph may trace a record on a film fastened on the belt. An automatic method is described for exposing given lengths of film by remote control from a sound-proofed studio. Associated apparatus is described.—*E. H. Kemp* (Clark).

3108. Bleuler, E. *Mechanismus—Vitalismus—Mnemismus*. (Mechanism, vitalism, mnemism.) Berlin: Springer, 1931. Pp. 382. M. 9.90.—*R. R. Willoughby* (Clark).

3109. Boss, L. F. A new source of working current for potentiometers. *Science*, 1933, 77, 331.—The author reports that a two-volt primary battery known as an "air-cell" battery (Eveready Air-cell "A" Battery, manufactured by the National Carbon Company) has characteristics which make it an almost ideal working current for a potentiometer. This battery has a rated capacity of 600 ampere hours and a flat voltage discharge curve if the current drain does not exceed the specified 650 milliamperes. This is ample capacity for a potentiometer for many months' use. The author used such a battery in place of the usual storage battery and found that when protected against temperature changes the working current remained constant for hours and in some cases for an entire working day without adjustment.—*H. W. Karn* (Clark).

3110. Carus, C. G. *Psyche. Zur Entwicklungsgeschichte der Seele*. (Psyche. The developmental history of the mind.) (2nd ed.) Leipzig: Kröner, 1931. Pp. xii + 511. RM. 4.00.—(Not seen).

3111. Carus, C. G. *Vorlesungen über Psychologie, gehalten im Winter 1929/30 zu Dresden*. (Lectures on psychology held in the winter of 1929/30 in Dresden.) Leipzig: Rotapfel Verl., 1931. Pp. 460. RM. 10.80.—(Not seen).

3112. Colucci, C. *Preparazione ad un corso di psicologia sperimentale applicata*. (Preparation for a course of experimental applied psychology.) *Studium*, 1932, 22, 1-11.—After briefly reviewing certain aspects in the development of experimental psychology and summarizing the importance of biological tendencies in psychology and psychometry, the author outlines the principal applications of psychology, such as psycho-pedagogy, judiciary and military psychology, mental hygiene, and psychotechnics, and discusses the most recent and important applications to be found in general clinical work in relation to the

unitary concept of morpho-physico-psychological constitution (Pende). In conclusion he emphasizes the philosophical value of psychological research.—*R. Calabresi* (Rome).

3113. De Gaultier, J. *Une philosophie de la contrariété*. (A philosophy of contrariety.) *Rev. phil.*, 1932, 57, 1-44.—The author calls Paulhan's philosophy a philosophy of contrariety, because it is actually, he thinks, contrariety which the individual feels in the inner environment, in the cosmic or social environment, which constrains him to lie, masking and altering himself in order to live. After going over the works of Paulhan, emphasizing the continuity of thought, the author shows that just as science has demonstrated the metamorphosis of matter into energy, so Paulhan has opened in the mind that domain of abstract emptiness where the dissociation of the elements which compose the free psychic states of thought liberates the prodigious forces of thought to the point where they are perhaps confounded with intra-atomic energy, which seems to be the soul of cosmic dynamism, and in view of which all the aspects of matter are but representation.—*Math. H. Piéron* (Sorbonne).

3114. Driesch, H. *The experiment: is it the only, and is it a reliable way to establish psychological facts?* *Character & Personality*, 1933, 1, 181-194.—The term *psychology* denotes the facts of mental experience. But every kind of experience is tied to some kind of ego. Therefore, it is introspection alone that provides the experience for investigation. However, the introspective psychologist readily adopts behaviorism as a method in dealing with an external mind. Phenomenology, as advocated by Scheler's disciples, is rejected. When these thinkers propose that the "you" is given to us *a priori* they forget their own past experience—how early in youth they had acquired concepts like "you," "thing," and "cause," and, as Locke has shown, employed such concepts later as though they had been innate. Furthermore, there is no place in psychology for radical behaviorism. It abolishes psychology proper as a science, because at bottom it does not recognize experience; all that is left is a physiology of movement mechanistically interpreted. So with these indications as to the nature of psychology there should be no hesitation in giving a negative answer to the question: "Is experiment the only method of establishing psychological facts?" Introspection without experiment is conceivable, but an experimental system not based on introspection is an absolute impossibility. As to the validity of experiment, it can render introspection more accurate and responsible and preserve it from rash generalization. Furthermore, it is essential in the study of abnormal and paranormal psychology as well as in autoscopic investigation.—*M. O. Wilson* (Oklahoma).

3115. Ebbinghaus, H. *Abriss der Psychologie*. (Outline of psychology.) Berlin: de Gruyter, 1932. (Ausg. 1931.) Pp. 206. RM. 4.20.—(Not seen).

3116. Esper, E. A. Polytactic manual movement apparatus. *J. Exper. Psychol.*, 1933, 16, 161-174.—A multiple-choice type recording maze, similar in all essential details to the apparatus described by Lumley in *Psychol. Monog.*, 1931, No. 189.—S. Renshaw (Ohio State).

3117. Ford, A. *The story of scientific psychology*. New York: Sears Pub. Co., 1932. Pp. xii + 307. \$3.00.—A book on psychology written for the intelligent layman. The author hopes that he is presenting it "in its historical setting . . . with all the degree of accuracy" he is capable of, "yet without sacrificing the dramatic quality of the story, which contains a considerable amount of emotional drive." Some of the chapter headings are: *The Age of Alchemy; Ten Billion Neurons; The Organs of Expression; Trial and Error Learning; Pattern Learning; Psychology Earning a Living; Psychology Facing the Future*. Index but no bibliography.—D. Shallow (Worcester State Hospital).

3118. Frankhauser, K. *Vitalismus, Mnemismus, Energismus*. (Vitalism, mnemism, energism.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 246-260.—A theoretical discussion of several general points of view in biology, including: Driesch's vitalism, Semon's mnemism, Bleuler's doctrine bearing the same name, and energism.—C. W. Fox (Rochester).

3119. Franz, S. L., & Gordon, K. *Psychology work book*. New York: McGraw-Hill, 1932. Pp. ix + 227.—The authors present a laboratory work book of references, demonstrations and class experiments to accompany their textbook *Psychology*. The work book is compiled from the point of view that the student avoids confusion and gains a better understanding of the psychological phenomena involved by carrying out experiments and witnessing demonstrations which are not too analytical and detailed. Special apparatus is not required for most of the experiments, and where recommended it is simple and inexpensive. All necessary pictures, diagrams, tables, charts, and graphs are presented with the individual experiment. Questions and references to the psychological literature which may serve as the basis of classroom discussions and as a stimulus for more elaborate research procedures are presented with the experiments. The work book is so constructed that each sheet may be torn out after the experiment is completed and written. The experiments fall under fourteen chapter headings, corresponding to those of the authors' textbook. An outline of a typical chapter, that on the learning process, includes a list of representative references and experiments on (1) the learning curve, (2) the learning curve as shown by translation of a telegraphic code, (3) learning of Hawaiian vocabulary, (4) animal learning involving the rat in the maze, (5) animal learning involving the cat in the problem box, (6) control of reflexes, and (7) the learning of meaningful material.—C. C. Neet (Clark).

3120. Howells, T. H. A new type of psychogalvanometer. *J. Exper. Psychol.*, 1932, 15, 591-597.—Details of circuits employed in an A.C.-D.C. hook-up.—S. Renshaw (Ohio State).

3121. Huhn, R. v. The Richards-Roope tangent meter. *J. Amer. Statis. Asso.*, 1933, 29, 82.—A practical tangent meter is described which uses the reflected image for the location of the tangent point of a curve. The angle degree and the tangent function may be read off directly from a metal disk with very small error. "The instrument should be especially useful in all cases where it is difficult to compute the algebraic expression for a given curve itself and consequently the differential quotient. This occurs frequently in the case of curves of the higher order. A great deal of time can be saved because it is possible to measure rates at intermediate intervals without repeating tedious numerical computations."—E. B. Greene (Michigan).

3122. Koyré, A., Puech, H. C., & Spaier, A. *Recherches philosophiques*, tome I, 1931-1932. (Philosophical researches, volume I, 1931-1932.) Paris: Boivin, 1932. Pp. 517. Fr. 60.—An annual volume, composed of two parts, the first part discussing precise questions, the second part consisting of bibliographical analyses. In this volume there are three main groups of studies: (1) Actual tendencies of metaphysics and a symposium on the irrational. In this group are the following eight articles: J. Wahl, *Towards the concrete* (pp. 1-21); A. Spaier, *Thought and extent* (pp. 21-25); G. Blachelard, *Noumenon and microphysics* (pp. 55-66); J. Baruzi, *Introduction to researches on mystic language* (pp. 66-83); M. Heidegger, *On the nature of cause* (pp. 83-125); R. Müller-Freienfels, *Rationalism and irrationalism* (pp. 125-138); R. Johan, *Reason and the irrational according to E. Meyerson* (pp. 166-179); A. Spaier, *On the notion of the irrational* (pp. 166-179). In the second group, a symposium on philosophical methods, there are six articles: H. J. Jordan, *The naturalistic conception of the world in its relationships with the dialectic or synthetic method in biology* (pp. 179-206); H. J. Pos, *The unity of syntax* (pp. 206-229); P. Masson-Oursel, *A metaphysical method; inversion* (pp. 229-235); J. Laird, *The contemporary moralists at Oxford and the revival of intuitionism* (pp. 235-253); E. Leroux, *An idea of a new method in ethics*; J. Bayet, *Reflections on methodology in the most ancient classical history* (pp. 262-299). The third group treats of orientation in foreign philosophical research: W. Dubislaw, *Researches on the philosophy of mathematics in Germany* (pp. 299-312); R. Müller-Freienfels, *The principal tendencies in German philosophy today* (pp. 312-322); L. Verlaire, *Animal psychology in Belgium* (pp. 322-345); J. Bierens de Haan, *Animal psychology in Holland from 1928 to 1930* (pp. 334-345); I. Brucar, *Roumanian philosophy* (pp. 345-353); A. Reymond, *The present philosophical preoccupations in French Switzerland* (pp. 353-363). The last part is devoted to analyses and to two general reviews of books, about 45 in all, of which 7 are of psychological interest.—Math. H. Piéron (Sorbonne).

3123. Kretschmer, E. The experimental method treated as an instrument of psychological investigation. *Character & Personality*, 1933, 1, 175-180.—"Summing up, we may say that the advantages and disadvantages of the experimental method are approximately the same in psychology as in other branches of science. With regard to the number of facts apprehended and with regard to their detailed qualitative evaluation, the method of experiment can never rival descriptive observation. The latter method is employed in psychology by external observation, but also in the form of introspective and sympathetic interpretation. On the other hand, the method of experiment and mathematics furnishes a more definite proof of the facts which it can apprehend. It provides an excellent check and completion of other psychological methods and is productive of keener observation. It is the best preventive of vagueness and subjectiveness."—M. O. Wilson (Oklahoma).

3124. Kuroda, R. On vijñati-matrata. I. Introduction and the eight phases of mind. *Acta Psychol. Keijo*, 1932, 1, 133-145.—After having described the general outline of the doctrine of Vijñati-matrata (Vijñapti-matrata according to U) the author tries to interpret the so-called eight phases of mind from the standpoint of modern psychology. He has the intention, upon conclusion of the remaining studies, of putting the essentials of this representative Buddhist psychology into a foreign language.—E. H. Kemp (Clark).

3125. McDougall, W. Experimental psychology and psychological experiment. *Character & Personality*, 1933, 1, 195-224.—The chaotic state of civilization today is due to science—physical science. The only remedy is more science—social science. The social sciences must advance to the point where they can afford some sure guidance in political, economic and social problems of every kind. The psychology on which the social sciences can be reared must be the culmination of all the converging natural sciences. Thus far psychological experiment has contributed little to the progress of these sciences. This relative sterility has been due to many causes. (1) Psychologists have been befogged by metaphysics—their efforts have not been confined to problems which could be solved. (2) Psychological science is much more difficult than physical science. (3) Psychologists, in order to be scientific, have erroneously adopted the methods of physical science and have accepted as dogmas for their guidance strict determination, mechanistic causation, and the atomic principle. (4) Psychologists as a whole are unprepared. They are too young and immature, due to the tendencies to enter the field too early and leave it too soon by exalting themselves to administrative positions or ambassadorships or by deserting it to become psychoanalysts, philosophers, or educationists of distinction. Furthermore, their training is inadequate. All psychologists should graduate in biology and afterwards in medicine. This should be followed by a few years of practice among nervous and mental patients.

Then a few years should be spent in the study of anthropology and the natural sciences—all of this before publishing or teaching in psychology.—M. O. Wilson (Oklahoma).

3126. McDougall, W. The energies of men. New York: Scribners, 1933. Pp. 395. \$2.00.—This book offers essentially a combination of the author's *Outline of Psychology* and his *Outline of Abnormal Psychology*. The author emphasizes the rôle of instinct, but presents a new formulation of this problem. The term instinct is reserved for infra-human behavior, and the terms native propensities and native abilities are applied to human behavior. "A propensity is a disposition, a functional unit of the mind's total organization, and it is one which, when it is excited, generates an active tendency, a striving, an impulse, or drive towards some goal; . . . a complex unit of organization, consisting of a propensity 'geared' closely and exclusively with some highly specialized native ability or group of abilities, constitutes an instinct in the strict sense of the word." A tentative list of 18 native human propensities is given, including such behavior as sex, fear, gregariousness, constructiveness, and migration. Abilities are distinguished as motor and cognitive. "Among predominantly motor native abilities are those of locomotion, standing, walking, running, those of manipulation, holding, bringing to the mouth; and, most important of all, the abilities of vocal utterance." Native cognitive abilities are represented by the receptor capacities.—W. S. Hunter (Clark).

3127. Myers, C. S. On the nature of mind. *Nature*, 1931, 128, 744-747.—(*Biol. Abst.* VII: 3226).

3128. Piddington, R. Psychological hedonism. *Austral. J. Psychol. & Phil.*, 1931, 9, 274-283.—Hedonism, which holds that all behavior is determined by the anticipation of pleasure or pain, is not so much an explanation of behavior as it is a result of a mental phenomenon. Through introspection we find that often we act without an agreeable end in view, and it is probable that in the field of instinctive behavior the end is not anticipated. The author states that in this kind of behavior each experience leaves a trace and modifies all subsequent activity. He says that this theory can be applied to the more elementary forms of behavior. Experience is inherent in all life activity, even in the tropisms of unicellular organisms and in the constituent cells, though not in the reflex arc. Through evolution, experiences give rise to more complicated instinctive behavior.—M. G. Willoughby (Clark).

3129. Rădulescu-Motru, C., & Moldovan, M. [Ed.] *Rev. de psihologie experimentală și practică*. Bucarest: Societatea Psihotehnică Universitară. Vol. 1, No. 1, 1931.—R. R. Willoughby (Clark).

3130. Rocard, Y. Visibilité des buts éclairés par un projecteur. (Visibility of objects lighted by a projector.) *Rev. d'optique*, 1932, 11, 139-211.—Analysis of conditions of visibility of objects in a cluster of projectors, and theoretical research on the performance of projectors which are described. It appears from this thorough study that cases of limited

visibility arise from a relatively simple relation between the brightness of background and the contrast and angle of visual acuity.—*Math. H. Piéron* (Sorbonne).

3131. Volkelt, H. *Eine neue Methode der Verhaltensbeobachtung und Protokollierung*. (A new method for registering behavior and for making protocols.) *Indus. Psychotechn.*, 1933, 10, 28-29.—By means of a mirror arrangement children's behavior may be photographed from two directions with only one camera. The time and attention it takes to operate a second camera can be used to make other observations and records.—*C. Burri* (Chicago).

3132. Wang, G. H. *The future of psychology in China*. *Independent Rev. (Chinese)*, 1933, 1, No. 40, 13-16.—The author first points out that psychology in China has recently evolved from the so-called "translation period" to a period of independent research. The National Research Institute of Psychology (Academia Sinica), and the psychological departments of Tsinghua, Yenching, and Central universities are all quite productive. The present problems are how to cultivate this growing bud of experimental psychology and help its growth, and how to train students who have both interest and ability in psychological work. According to the author, most Chinese psychologists have gone astray. They have entered, so to speak, two "culs de sac," "testing" (mental and educational), and "maze learning of the white rat." Hopeful prospects for psychology in China will depend upon a two-fold study: (1) theoretical, and (2) practical. The theoretical study may be made in either of two ways. First, by using ecological or experimental methods we may record in detail the development of behavior in man and other animals from fertilization to senile decay and death. These records are indispensable for psychology (*Z. Y. Kuo's* studies in the ontogeny of embryonic behavior in birds are mentioned). Second, by utilizing biological knowledge and technique we may attempt experimental analyses of behavior. The field for practical study lies in industrial psychology. This study would cover such problems as organization and management of factories, selection and training of workmen, efficient methods of working, etc.—*C.-F. Wu* (Nat. Res. Instit. Psychol., China).

3133. Whitehead, A. N. *Adventures of ideas*. New York: Macmillan, 1933. Pp. 392. \$3.50.—This book represents both a philosophy of civilization and an account of the effect of certain ideas on the development of civilization. The material is classified as sociological, cosmological, philosophical, and as pertaining to civilization.—*W. S. Hunter* (Clark).

3134. Wolters, A. W. *Victoria Hazlitt, 1887-1932*. *Brit. J. Psychol.*, 1933, 23, 205-208.—*R. R. Willoughby* (Clark).

[See also abstracts 3195, 3406, 3462, 3518, 3571.]

SENSATION AND PERCEPTION

3135. Amano, T., & Shigeno, M. *Preliminary study on the perception of visual size*. *Acta Psychol.*

Keijo, 1933, 2, 1-12.—This is an experimental study on the factors having influence upon the perception of visual size, as might be the case when the background is thoroughly excluded. Experiments were, therefore, made in a dark room, and lighted figures were given as stimuli. Subjects were required to compare the relative size of two simple geometrical figures of the same kind. They were circles, squares, and rectangles respectively. The ratio of the two figures to be compared was made constant: the smaller one was fixed at a certain distance from the subject, and the larger one was so adjusted as to be seen to be equal to the nearer and objectively smaller one. Under these conditions the authors investigated the function of parallax, convergence, and accommodation as subjective factors on the one hand, and the function of relative brightness, size, and distance of the two figures as objective factors on the other. The results obtained show that each of these factors could have an effect on the perception of visual size in proportion to the degree of their direct or indirect bearing on depth perception of objects. In addition an interesting fact was noticed with reference to the relation between forms of stimulus figures and their visual size, i.e., the degree of inconsistency of the change of the relative visual size with that of the relative visual angle of the two compared objects, caused by change of their relative distance, varies according to the forms of the objects. If the term "constancy of visual size" (*Sehgrößenkonstanz*) taken in its widest sense can be applied to this case, we might say that the phenomena of constancy of visual size have a functional relation to the forms of objects. In squares, for example, experiments showed a greater tendency toward constancy than in circles. No sufficient explanation of this fact, however, can yet be given in connection with perception of depths. It seems that a more comprehensive principle, such as Gestalt, will be required for this explanation.—*T. Amano* (Keijo Imperial University).

3136. [Anon.] *Measurements for Jaeger's test types used in near vision tests*. *U. S. Publ. Health Repts.*, 1931, 46, 518-520.—(*Biol. Abst.* VII: 863).

3137. Blakeslee, A. F. *Genetics of sensory thresholds; taste for phenylthiocarbamide*. *Proc. Nat. Acad. Sci.*, 1932, 18, 120-130.—Results of testing 103 families. Differences in taste perceptions are innate and hereditary. Other investigators have obtained similar results in respect to other sense perceptions, such as odors.—(Courtesy *Bibliographia Eugenica*).

3138. Blechschmidt, E. *Farbe und Figur bei anomalen Trichromaten*. (Color and form in anomalous trichromats.) *Quakenbrücke: Trute*, 1931. Pp. 10.—*R. R. Willoughby* (Clark).

3139. Börnstein, W. *Über den Geruchssinn. II. Kapitel: Zur Methodik der Geruchsprüfung unter besonderer Berücksichtigung der klinischen Bedürfnisse*. (The olfactory sense. II. [The methodology of olfactory testing, with special attention to clinical requirements.] *Dtsch. Zsch. f. Nervenheilk.*, 1928, 104, 78-91.—(*Biol. Abst.* VI: 18593).

3140. Dundas-Grant, J. Quantitative tuning-fork tests in relation to the rate of "dying-down." *J. Laryngol. & Otol.*, 1929, 44, 380-389.—(*Biol. Abst.* VII: 849).

3141. Endres, G. Punktionsnarkose von Rezeptoren. (Puncture narcosis of receptors.) *Zsch. f. Biol.*, 1930, 89, 536-540.—(*Biol. Abst.* VI: 18620).

3142. Ferree, C. E., Rand, G., & Monroe, M. M. Diagnostic scales for the 1 degree and 0.17 degree form field stimuli for the eight principal meridional quadrants taken separately. *Arch. Ophth.*, 1931, 6, 518-534.—(*Biol. Abst.* VII: 3165).

3143. Ferree, C. E., Rand, G., & Sloan, L. L. Roenne's nasal step as studied with stimuli of different visibilities. *Arch. Ophth.*, 1931, 6, 877-900.—(*Biol. Abst.* VI: 24939).

3144. Friedman, B. The blue arcs of the retina. *Arch. Ophth.*, 1931, 6, 663-674.—(*Biol. Abst.* VI: 24940).

3145. Garvey, C. R. Is the blind spot blind? *J. Exper. Psychol.*, 1933, 16, 83-97.—Two stimuli were designed for the purpose of casting light upon two mutually exclusive areas of the optic disk. This method of stimulation would favor form discrimination if the optic disk is sensitive to light. It would not favor form discrimination if the latter is dependent upon the retinal elements surrounding the optic disk, as both stimuli irradiate light in all directions in the same manner. There were some small differences between the stimuli in size, brightness, and definiteness. The direction of the differences is opposed to what would be expected on the basis of the sensitive-disk theory. The stimuli were not discriminated on the basis of form, and could not be identified and recognized when shown to the subjects in direct vision after having been presented to the blind spot. The sensitivity of the optic disk is not sufficient or necessary to account for what vision there is of objects in the blind spot.—S. Renshaw (Ohio State).

3146. Gibson, J. J. Adaptation, after-effect and contrast in the perception of curved lines. *J. Exper. Psychol.*, 1933, 16, 1-31.—A series of eight experiments in which the S's wore a pair of prisms shifting the visual field about 15° to the right, and—more important to the problem—the examination of the phenomenal bending of vertical straight lines into curves convex to the left, the horizontal components of the figures remaining undistorted. During an hour's observation "a curved line becomes phenomenally less curved than it was at the beginning of the period, and at the end of the period an objectively straight line will seem curved in the opposite direction. This fact holds whether the curvature is actually in the object, or is induced by the distorting effect of the prisms." Two theoretical considerations are offered and examined, preliminary to further experimentation: (1) The effects noted may be ascribed to conflict between experiences designated as visual and kinesthetic, following the discussions of Stratton, Wooster, Young, and Ewert on variations of the same general problem. (2) The effects may be described in terms of a function of the perceptual

process "akin to sensory adaptation." The first argument is rejected in favor of the second, and further observational evidence is adduced in support from experiments 2 to 9 inclusive. These were: adaptation to prism curvature with 10-minute inspection period, the contrast phenomenon, adaptation to curvature in kinesthetic perception, negative after-effect with a bent line instead of a curved line, limitation of the after-effect to the stimulated area of the visual field, and the transfer of the after-effect to the corresponding area of the other eye. The results indicate that the adaptation effect and the negative after-effect are of the same degree of magnitude, that both simultaneous and successive contrast may be demonstrated and that both these effects occur for kinesthetic as well as for visual perception. The essential condition for adaptation and after-effect seems not to be mere curvature of line, but departure from rectilinearity, since the phenomena appear as well on fixating an obtuse angle. The negative after-effect of curvature (i.e. bending in the opposite direction) is fairly closely limited to the specific area of the visual field previously occupied by the stimulus line. When a number of curved lines are fixated adaptation and after-effect can be correspondingly induced simultaneously in different parts of the field. The negative after-effect shows itself in the corresponding area of the other eye when only one eye has undergone adaptation, the effect being less in the unstimulated eye (an observation pertinent to the efforts of Delboeuf, Titchener, Dunlap, and H. M. Johnson to describe the appearance of the negative after-image in the opposite, unstimulated retina). The process involved in curvature adaptation, the author holds, "takes place not in the sense organ but at or subsequent to an early stage of the central process." A further article is promised in which the writer hopes to show that "the same analogies hold" between line and color perception in the observed effects, "also for perception of visual movement, perception of direction, and perhaps for certain non-visual perceptions including temperature."—S. Renshaw (Ohio State).

3147. Guilford, J. P., & Hilton, R. A. Some configurational properties of short musical melodies. *J. Exper. Psychol.*, 1933, 16, 32-54.—The stimulus material consisted of the Seashore test of tonal memory, in which a series of short melodies are played on a phonograph, each melody being repeated immediately with one tone changed. The subject is instructed to state which one of the tones is altered in the repetition. Other tones than the one actually altered may change in pitch phenomenally. Seven subjects were asked to judge the 200 tones involved in the melodies as to whether they were higher, lower, or the same in the repetition, a total of 25 times each. The tones, whether altered or unaltered, are rendered unstable (lack of close correspondence between physical and phenomenal fact) by the presence of other tones in the melody. Instability is directly related to the length of the melody. Both ends of the melody are more stable than the middle, and the unaltered tones at the beginning are more stable than at the end. The first tone seems raised in pitch, and the

last lowered, when the melody is repeated. When a tone is raised or lowered all other tones change in the same direction. The dynamic effect of altering a tone is greater in the preceding than in the following tones. The maximal effect may be felt at the third tone from the altered tone. The shape of the whole melody is a potent factor in determining phenomenal changes. "Changing one member changes all the rest."—*S. Renshaw* (Ohio State).

3148. Hammerschlag, V. Die hereditär-degenerative Innenohrerkrankung (Heredopathia acustica) vom Standpunkt der Erbpäthologie. (Hereditary degenerative disease of the internal ear from the standpoint of hereditary pathology.) *Monatssch. f. Ohrenh.*, 1932, 66, 1281-1285; 1503-1520.—Under heredopathia acustica Hammerschlag includes familial deaf-mutism, otosclerosis, progressive labyrinthine deafness, and premature senile deafness. From the standpoint of hereditary pathology, he regards all these both as different degrees of a single genetic nosological entity, with connecting links, and as hereditary mutations of the neuro-ectoderm and mesoderm. This is one illustration of the law that all hereditary pathological conditions showing similarities must be considered as members of a single larger group. The etiology of heredopathia acustica appears to be the sum of various external, incompletely known injuries acting over several generations and having as their single criterion a weakening, degenerative effect. The author reviews the German literature bearing out this hypothesis and discusses particularly the experimental production of acoustic heredo-degeneration in mice. These dancing mice show deafness, due to arrested development of the internal ear, the condition presenting analogies to that in man. Hammerschlag gives an extended discussion of the embryology and histopathology of human heredopathia acustica. The pathology is characterized by two types of lesions: neuro-ectodermal and mesodermal. He believes that he has discovered the genotypic formula of its inheritance and gives a provisional summary of this in connection with an exhaustive consideration of general genetic principles. The article is illustrated by tables, charts, and family histories of hereditary deaf-mutism.—*M. E. Morse* (Hyattsville, Md.).

3149. Herren, R. Y. The effect of high and low female sex hormone concentration on the two-point threshold of pain and touch and upon tactile sensitivity. *J. Exper. Psychol.*, 1933, 16, 324-327.—In five normal women followed through eleven menstrual cycles a high concentration of female sex hormone (follicular fluid) in the blood corresponded with a lowered threshold for two-point touch and pain discriminations and with reduced tactile sensitivity. For similar conditions no change in reduced reflex time could be demonstrated.—*E. H. Kemp* (Clark).

3150. Hines, M. Gegensätzliches Verhalten von Druck- und Schmerzsinne auf belasteter Haut. (Opposed action of pressure and pain senses on deformed skin.) *Zsch. f. Biol.*, 1931, 91, 449-457.—(*Biol. Abst.* VI: 24944).

3151. Jackson, E. Aberrations of eyes and lenses. *J. Amer. Med. Asso.*, 1932, 99, 437-443.—A discussion of refraction defects in the eye and methods of correction.—*D. J. Ingle* (Minnesota).

3152. Kogo, S. Weitere Untersuchungen über den Einfluss der Reizung des Sympathicus auf die Retina. (Further investigations on the influence of stimulation of the sympathetic on the retina.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 227, 727-732.—(*Biol. Abst.* VI: 24945).

3153. Lauterbach, C. E., & Crouser, R. E. Sensation cues to moisture. *J. Exper. Psychol.*, 1933, 16, 328-338.—The authors investigated the possibility of demonstrating temperature as a moisture cue by combining wetness and dryness with variable temperature conditions and noting the amount of error involved in judgments of wetness and dryness by tactile discrimination. Combinations of water and mercury were used. It was found that: (1) temperature is a moisture cue in the case of many, but not all, individuals; (2) moist is not necessarily a blend of touch and cold, but may be a blend of touch and warmth as well; (3) it is possible that other cues such as density, capillary attraction, and evaporation are often interpreted as concomitants of wetness.—*E. H. Kemp* (Clark).

3154. MacNaughton-Jones, H. The transmission of sound from the external ear to the cochlea. *Proc. Roy. Soc. Med.*, 1931, 24, 1683-1694.—(*Biol. Abst.* VI: 18600).

3155. Mukherjee, K. C. The duration of cutaneous sensation (I) and the improvement of its sensible discrimination by practice. *J. Exper. Psychol.*, 1933, 16, 339-342.—Using an electromagnetic pointer attached to a metronome as a means of applying a hair point to a small area of the wrist of the subject, it was found that two or three contacts per second are felt as just separate. However, with greater intensity of stimulation, the duration increases. When, in another experiment, thirty observations were made twice a day with Spearman's esthesiometer in determining the two-point limen, it was found that the discriminative delicacy improved greatly in the third and fourth weeks of the experiment.—*E. H. Kemp* (Clark).

3156. Peterson, F. Local electric anesthesia. *Science*, 1933, 77, 326.—During the summer of 1892, while working in the Edison laboratory at Orange, the author noted that anesthesia and analgesia could be produced by alternating currents above 2,000 vibrations. The following autumn, in the Nervous Department of the Vanderbilt Clinic, an opportunity presented itself for testing the newly discovered electric anesthesia. A young woman appeared with a painful felon of the left forefinger. The electric anesthesia was quickly produced and the fingertip lanced. The operation was apparently painless, though as soon as the current was removed sensation returned, with of course such pain as would be natural after any similar incision. This was probably the first operation under such a type of local anesthesia.—*H. W. Karn* (Clark).

3157. Pradines, M. Philosophie de la sensation. La sensibilité élémentaire, les sens primaires, le sens du besoin. (Philosophy of sensation. Elementary feeling, the primary senses, the sense of need.) *Publ. de l'Univ. de Strasbourg*, 1932, No. 61. Pp. 179. Fr. 20.—Sensation is a function of the intelligence in that it is always the interpretation of a sign; it is always the problem of intellectual intuition. In the first part the author examines needs and defenses, the motor origins of sensation, their opposition, false needs, and false tendencies. In the following chapter he touches upon pleasure and pain, and concludes that pleasure comes from aptitude, but pain does not come from aversion. Chapter III is consecrated to taste and odor, and Chapter IV to what he calls the tactile antennae of need.—*Math. H. Piéron* (Sorbonne).

3158. Revault d'Allonnes, G. L'effet stéréoscopique et en général les "effets" psychiques. (The stereoscopic effect and psychic effects in general.) *Ann. méd.-psychol.*, 1932, 90, 430-438.—The stereoscopic effect is not an isolated phenomenon. Many normal and psychopathological phenomena may be considered to be analogous effects (psychosensory) and may be subjected to essentially the same type of explanation.—*R. J. Beitel, Jr.* (Clark).

3159. Riesz, R. R. The relationship between loudness and the minimum perceptible increment of intensity. *J. Acous. Soc. Amer.*, 1933, 4, 211-216.—Proposes the hypothesis that "two tones of different frequencies will sound equally loud when their intensities are such that the ratios of the number of distinguishable steps above threshold to the number of steps above threshold for the reference contour at the same frequency are equal for the two tones." The reference contour (known as an equal loudness contour) is determined by balancing pure tones of various frequencies against 1000 cps tones at levels of 10, 20, 30, etc., db above the threshold.—*P. E. Huston* (Worcester State Hospital).

3160. Scheminzky, Ferdinand, & Scheminzky, Friedricke. Körpergrösse und Empfindlichkeit gegen den galvanischen Strom. (Body size and sensitivity to electrical currents.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 548-564.—(*Biol. Abst. VI*: 24928).

3161. Smith, G. E. New light on vision. *Proc. Roy. Inst. Great Britain*, 1930, 26, 218-221; *Nature*, 1930, 125, 820-824.—(*Biol. Abst. VI*: 18655).

3162. Smith, W. F. The relative quickness of visual and auditory perception. *J. Exper. Psychol.*, 1933, 16, 239-257.—The relative quickness of visual and auditory perception is affected by changes in the intensity of either stimulus. The individual differences were so great that the results obtained by previous investigators could be matched by samplings from the records obtained in the present investigation. Intensity changes also affect the quickness with which an interval may be recognized between the two stimuli. Changes in the intensity of the lights used in this experiment had a more pronounced effect on the order of recognition than on the perception of an interval between the stimuli. Furthermore, intensity

changes of the lights were more effective than the intensity changes of the sounds, though it could not be said that these stimulus intensities were comparable.—*E. H. Kemp* (Clark).

3163. Sobel, S. P. Tender areas in visceral diseases. *Med. J. & Rec.*, 1932, 136, 353-357.—"Tender areas of a definite location on the surface of the hands are present in visceral disorders. The pain elicited is a deep pressure pain and is out of proportion to the amount of pressure used." This viscerocutaneous reflex was first described by Head and MacKenzie. The tenderness is apparently protopathic "and is probably carried by the sympathetic fibers in motor nerves." "Viscerocutaneous reflexes in the longitudinal direction are distributed as follows: organs situated near the midline of the body give rise to tender areas near the midline of the body surface and on the inner side of the extremities. The further an organ is from the midline, the further from the midline of the trunk and extremity will the corresponding area of tenderness be. Organs situated on the right side of the body will give rise to the tender areas on the right hand. Organs situated on the left side of the body will give rise to tender areas on the left hand. Organs situated in the midline give rise to tender areas in both hands on the inner side." Tendernesses are described which have a relationship to gall-bladder, kidney, and prostate disease, gastric and duodenal ulcers, appendicitis, otitis media, pulmonary and rectal disease, and diseases of the caecum and pancreas. The nervous mechanism accounting for this phenomenon is conjectured in some detail.—*R. C. Givler* (Tufts).

3164. Steinhausen, W. Über den Nachweis der Bewegung der Cupula in der intakten Bogengangsam-pulle des Labyrinthes bei der natürlichen rotatorischen und calorischen Reizung. (The demonstration of movement of the cupula in the intact ampulla of the semi-circular canals of the labyrinth in natural rotatory and caloric stimulation.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 322-328.—(*Biol. Abst. VI*: 18604).

3165. Taylor, A. K. The daylight illumination required in offices. (Department of Scientific and Industrial Research: Illumination Research. Technical Paper No. 12.) London: H. M. Stationery Office, 1931. 3d.—(*Biol. Abst. VI*: 24949).

3166. Thouless, R. H. Phenomenal regression to the real object. *Nature*, 1933, 131, 261-263.—The author briefly describes a number of phenomena, such as color constancy, in which there seems to be a breakdown of correspondence between external stimulus and peripheral physiological process. His conclusion, in the form of a law, is as follows: when a stimulus which by itself would give rise to a certain phenomenal character is presented together with perceptual cues which indicate the physical character of the object, the resulting phenomenal character is neither that indicated by the stimulus alone nor that indicated by these perceptual cues, but is a compromise between them. Practical applications of the principle are considered.—*E. H. Kemp* (Clark).

3167. Tinkle, W. J. Deafness as a eugenical problem. *J. Hered.*, 1933, 24, 13-18.—In 31 families in which both parents are deaf and at least one child is in the Ohio State School for the Deaf, 70.8% of 89 offspring are deaf. In 38 family history charts for cases of otosclerosis "a larger proportion of the offspring are afflicted with this defect . . . than suffer from deafness in families of deaf-mutism." An experiment seeking to differentiate between two recessive genes for deaf-mutism by the range of an individual's sensitivity on the audiometer gave negative results.—B. S. Burks (California).

3168. Tucker, W. S. The science of listening. *Proc. Roy. Phil. Soc. Glasgow*, 1928/1929, 57, 50-69.—(*Biol. Abst.* VII: 3188).

3169. Urban, F. M. The Weber-Fechner law and mental measurement. *J. Exper. Psychol.*, 1933, 16, 221-238.—Weber's law predicates the constancy of the relative threshold. By this one usually understands the ratio of the threshold of difference to the standard stimulus. Urban suggests instead the use of the ratio of the interval of uncertainty to the point of subjective equality. Fechner's law claims that sensation increases as the logarithm of the stimulus. Urban presents it in a new form which he believes to have definite meaning and which may be tested by experience: the estimation value, i.e. the point of subjective equality, increases as the logarithm of the stimulus. In Urban's treatment of the results of experiments performed by Thurstone on the method of equal-appearing intervals Fechner's law is verified excellently, but Weber's law rather poorly. This suggests the view that there exists no connection, or a very loose connection, between these two propositions, and the author thinks that the explanation lies in the fact that the laws of Weber and of Fechner are statements about the constants of the psychometric functions for different standard stimuli.—E. H. Kemp (Clark).

3170. Vogel, P. Über die Bedingungen des optokinetischen Schwindels. (The conditions of optokinetic vertigo.) *Pflügers Arch. f. d. ges. Physiol.*, 1931, 228, 510-530.—(*Biol. Abst.* VII: 836).

3171. Vogel, P. Über optokinetische Reaktionsbewegungen und Scheinbewegungen. (Optokinetic reaction movements and apparent movements.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 632-643.—(*Biol. Abst.* VI: 24930).

[See also abstracts 3130, 3178, 3256, 3269, 3272, 3277, 3278, 3279, 3289, 3291, 3292, 3299, 3303, 3454, 3522.]

FEELING AND EMOTION

3172. Drever, J. The nature of emotion. *J. Abn. & Soc. Psychol.*, 1932, 27, 297-301.—Emotion has two aspects: it is a phase of the response of the organism to its environment, and it is a type of experience. In the relation of the emotion to instinct, the evoking of an instinctive impulse need not involve emotion. Such elementary feeling as it does involve might be called "interest." In proportion, however,

as the impulse is thwarted the response of the organism becomes increasingly protopathic, there is emotional dissociation, and the emotion of a "sorrow" polarity is experienced. The "joy" polarity is neither so frequent nor usually so intense. This develops when, and in proportion as, the impulse is facilitated, more particularly if the facilitation is sudden or unexpected, or if the facilitation unexpectedly takes the place of obstruction.—C. H. Johnson (Boston Psychopathic Hospital).

3173. Enke, E. The affectivity of Kretschmer's constitution types as revealed in psycho-galvanic experiments. *Character & Personality*, 1933, 1, 225-233.—Affectivity was measured under three conditions of expectancy: (1) rest—expectancy aroused merely by novelty of the situation; (2) "ideational" expectancy—aroused by telling the subject to think of a number between one and nine, which at the end of the experiment, during which the experimenter counted up to nine, the experimenter would tell; and (3) "sensory" expectancy—aroused by pleasant odor, unpleasant odor, slight prick, and pistol shot. Under all conditions save the slight prick, deflections were greatest for leptosomes, least for pyknics, and intermediate for athletes. During the counting experiment, leptosomes reacted to all numbers with the maximum deflection at the crucial number. Pyknics remained quiet except for the first number and the ones preceding and following the crucial number. However, with the light pricking stimulus the order was reversed, i.e., the pyknics were most irritable and leptosomes least. This finding agrees with the notion that pyknics are most concerned with physical well-being, whereas leptosomes are disciplined to endure restrictions of physical needs. This sensory experiment further shows a capacity for the pyknics to discharge their affects through psychomotor channels, evidenced by the fact that they reacted to the shot by loud cries of fear but without galvanic variations. Males and females were approximately equal in their affectivity, except that it was possible to determine the number thought of in 86% of the cases for women and in only 67% for men.—M. O. Wilson (Oklahoma).

3174. Golomb, A. [Psychology of anger.] *Vivobleter*, 1932, 3, 300-312.—A semi-popular psychological and historico-cultural presentation of some of the aspects of anger.—D. Shallow (Worcester State Hospital).

3175. Kaplun, D. The feeling tone of adjectives. *J. Appl. Psychol.*, 1933, 17, 63-67.—An experiment with 50 college students on the feeling tone of adjectives provides a more accurate gradation of adjectives such as were used by Poffenberger and Barrows in experiments on the feeling tone of lines and curves.—P. G. Corby (Psychological Corporation).

3176. Marcu, I. Spinal excitability in emotional state. *Quar. J. Exper. Physiol.*, 1929, 19, 381-385.—(*Biol. Abst.* VI: 18639).

3177. Patrizi, M. L. L'accertamento e la misura fisiologica dell'emozione e della passione. (The control and physiological measurement of emotion

and passion.) *Giustizia penale*, 1932, 38. Pp. 31.—In this inaugural address, the author gives a résumé of the history of the study of emotions, going from the work of Darwin and Mantegazza to the James-Lange somatic theory and its plethysmographic applications. He shows how the experimental study of emotions and passions, by means of plethysmography in particular, is applicable to the control of emotional sincerity in the field of art (actors, orators, and musicians), in the field of professional orientation, where the establishment of the power of inhibition is extremely important, and in the field of psychological criminology, where the investigator must be able to uncover deception and recognize the emotional content accompanying the culprit's idea or remembrance of a person, situation, etc.—*R. Calabresi* (Rome).

3178. Walton, E., & Morrison, B. M. A preliminary study of the affective value of colored lights. *J. Appl. Psychol.*, 1931, 15, 294-303.—Four experiments using varying intensities of colored lights with men and women indicate sex differences in preferences for single colors and two-color combinations.—*P. G. Corby* (Psychological Corporation).

3179. Weber, C. O. The aesthetics of rectangles and theories of affection. *J. Appl. Psychol.*, 1931, 15, 310-318.—Judgments by 68 college women of the affective value of nine rectangles showed, on repetition of the judging, tendencies to favor extreme ratios of width to length. This is discussed in relation to findings of others, especially H. T. Moore's studies in consonance and dissonance.—*P. G. Corby* (Psychological Corporation).

[See also abstract 3522.]

ATTENTION, MEMORY AND THOUGHT

3180. Asch, S. E. An experimental study of variability in learning. *Arch. of Psychol.*, 1932, No. 143. Pp. 55.—The problem was to determine the amount of deviation of each individual from his own norm of performance in several tasks. It was also concerned with the mode of distribution of such variations and their bearing upon the validity of a selected theoretical curve of learning. 20 college students were subjects; 10 were trained in five learning tasks, 10 in three learning tasks. The amount of variability remains constant for each individual as learning progresses. The correlations between the deviations of an individual from his own norm in different learning functions, when they are performed within a half-hour period, are found to be significant. It is concluded that there is present a systematic though slight factor of general efficiency, for the subjects and functions dealt with, over half-hour periods.—*E. M. Achilles* (Columbia).

3181. Balken, E. R. Affective, volitional and galvanic factors in learning. *J. Exper. Psychol.*, 1933, 16, 115-128.—Lists of pleasant, unpleasant, and indifferently toned paired associates were presented to 20 subjects by means of a Hull memory drum during 24 experimental sittings. The purpose was to determine the interrelationships of the affective value of the materials used in learning, the volitional attitude

assumed during learning, the efficiency of learning, and the galvanic skin deflection elicited upon the presentation of materials. Subjects were instructed to assume either an active or a passive attitude while learning a list. The affective value of materials did not influence either the efficiency of learning or the galvanic skin reflex deflections elicited during learning. The active condition of learning was more efficient with regard to both the amount and speed of recall and the amount and magnitude of galvanic skin reflex deflections elicited. The affective value of the material still failed to exert any influence when the data for the active and passive conditions were analyzed separately. There was no relationship between the galvanic skin reflex deflections and efficiency of learning.—*S. Renshaw* (Ohio State).

3182. Boring, E. G. The law of effect. *Science*, 1933, 77, 307.—Interpretation of Thorndike's demonstration of the law of effect is considered under four possibilities: (1) "Success stamps in the preceding action retroactively"; (2) "Success is the consummation of a process that is stamped in as a whole"; (3) "Organization of a content . . . leaves a trace which persists to be affected by subsequent events"; (4) "Retroactive facilitation is actually the absence of subsequent inhibition." The author believes (3) and (4) to be the most sensible and plausible alternatives.—*P. Seckler* (Clark).

3183. Cason, H. Associations between the familiar and the unfamiliar. *J. Exper. Psychol.*, 1933, 16, 295-305.—The author obtained measures of the relative efficiency of learning and retaining 4 kinds of pairs, when the pairs were made up of a familiar word and a familiar word, an unfamiliar syllable and a familiar word, a familiar word and an unfamiliar syllable, and an unfamiliar syllable and an unfamiliar syllable. Data were also secured on the relative efficiency of spaced and unspaced learning, and on the influence of position in the series. Pairs were presented to the S both visually and orally. The F-F pairs were first and the U-U pairs were last on all tests. In visual presentation U-F and F-U were equal in learning, but U-F was superior in retention. In auditory presentation U-F was below F-U in learning but they were equal in retention. Tabulated results show that spaced learning was more efficient than unspaced for each kind of pair in the tests for both learning and retention. In an additional experiment using the most familiar of the F words and the most unfamiliar of the U syllables the order F-U was found superior to U-F in both learning and retention with auditory presentation and in learning with visual presentation. The two orders were about equal in retention with visual presentation.—*E. H. Kemp* (Clark).

3184. Feller, F. M. *Psychodynamik des primitiven Denkens*. (The psychodynamics of primitive thought.) Leipzig, Vienna: Deuticke, 1933. Pp. 57.—This is a book which tries to say much in a precise formulation. The first chapter, *On a Psychogenetic Precursor of Thought*, points out that the thought of primitive people is not quantitatively

inferior in development to ours, but differs qualitatively. We think in the abstract, while primitive people think in visual images. The laws of association of Wundt are emphasized by the factual material of psychoanalysis, and the nature of "absolute association-thought" is brought out by the method of deductive logic, as had to be done before abstract thinking was possible. The most important finding, which agrees with those of the ethnologists Windhuis and Roheim, is that associational thought can know no distinction between physical and psychic reality; it is under the control of the emotions; it is pansexual and bisexual, for every appearance must seem androgynous to primitive people. There follow a regular series of characteristics of association thought. One of the most important discoveries, which leads the author to his conclusions, is that of magic words in primitive conditions of the development of speech, nouns developed from larynx movements, fear cries, etc., while the verb arose from gestures (hand movements). These are the magic words through which the nouns (in a magical manner) are vitalized in the mind. From this there arise very important consequences. In the later chapters the author attempts to explain, on the basis of this association psychology, the solution of ethnological problems (totemism, death tabus, exogamy, etc.) from a new point of view; thus, the problem of the cave painters in the quaternary is called by Feller castration art. This essay differs from other ethnological works chiefly in that it does not try to point out new observations, but only intends to explain known problems in an inductive way by means of logical thought.—F. M. Feller.

3185. Krueger, W. C. F. Learning during directed attention. *J. Exper. Psychol.*, 1932, 15, 517-527.—Three groups of 24 subjects each learned lists of paired associates under various conditions of directed attention. Attention was directed by means of red or black lines under the pairs of nouns. For each condition of learning one list had the middle section underlined in black and another list in red. The same lists were used by the control group, to which no direction of attention was given, and by the other group, which received specific instructions. Directed attention brings about more economical learning than non-directed effort. Learning values of such direction are the same regardless of whether the first, middle, or last part of the unit to be memorized receives the directed effort. When difficult and easy material alternate frequently within the same unit, the entire unit is memorized slightly faster than when the same material is grouped into successively difficult material.—S. Renshaw (Ohio State).

3186. Lorge, I. The efficacy of intensified reward and of intensified punishment. *J. Exper. Psychol.*, 1933, 16, 177-208.—The author has analyzed the results from experiments with 100 subjects learning diverse materials. Consistently, the finding has been that a wrong response does more harm by occurring than the punishment can offset. The positive value of the reward was demonstrated con-

sistently to be high and significant. Thorndike's experiments with Spanish words have been duplicated using intensified punishment and reward, and no difference was found between the value of a symbolic punishment and that of an intensified punishment as administered in this experiment.—E. H. Kemp (Clark).

3187. Mitchell, M. B. Retroactive inhibition and waking suggestion. *J. Abn. & Soc. Psychol.*, 1932, 27, 336-341.—Lists of ten three-place numbers were exposed to a group of Yale students by means of the memory drum designed by McGeogh. It was found impossible consistently to affect the recall or amnesia for numbers recently learned, even in subjects who responded readily to direct suggestions of muscular contraction.—C. H. Johnson (Boston Psychopathic Hospital).

3188. Ogden, R. M. Thorndike's proof of the law of effect. *Science*, 1933, 77, 240.—The author maintains that Thorndike's "law of effect" is not susceptible to proof except on grounds which many psychologists will not accept. Thorndike's "statement that a 'satisfying after-effect strengthens directly the connection producing it' can be maintained only under the assumption that a course of behavior consists of a number of separate and discrete acts," while if, according to Coghill's principle, the fundamental premise of behavior is that "the behavior pattern expands from the beginning throughout the growing normal animal as a perfectly integrated unit," all end-effects are consummatory, and it is not permissible to rule them out of experiments such as Thorndike records." It is maintained that Thorndike's experiments demonstrate the "effectiveness of learning without recourse to 'repetition or frequency of occurrence, recency, intensity'" and that they do not demonstrate that conditions have been equalized as to "finality or consummatoriness." Success and not pleasure causes the right action to be stamped in due to the fact that the learning process is "from the beginning a 'perfectly integrated unit.'" Every achievement of the learning process is a consummatory process, the end-effect being one of finality due to the establishment of an equilibrium. The end-effect "belongs" to the preceding achievement only "because it is an integral part of the entire unit of action." It cannot be, therefore, an "after-effect" of this action.—C. C. Neel (Clark).

3189. Thorndike, E. L. The "spread" or "scatter" of the influence from a reward, in relation to Gestalt doctrines. *Science*, 1933, 77, 368.—A reply to Ogden's criticism of the author's report of the discovery of the "spread" or "scatter" of the influence of a reward, and especially the significance of the phenomenon as an independent proof of the law of effect. In summary, "Let any Gestaltist choose a hundred multiple-choice tasks as 'discrete and independent' one from another as he can find or make, each composed of a situation and n responses from which choice is to be made such that the situation and the responses are as 'discrete and independent' from each other as he can find or make, and let

him choose rewards and punishments as 'discrete and independent' from anything in the tasks as he can find or make. Then the situation-response connection which has a reward attached to it utterly arbitrarily by the experimenter will be strengthened thereby, so long as it is a satisfying after-effect of that connection to the learner. And the influence of the reward may, and often will, spread or scatter so as to strengthen other connections in the physiological neighborhood."—H. W. Karn (Clark).

[See also abstracts 3229, 3474, 3524, 3535, 3547.]

NERVOUS SYSTEM

3190. Achelis, J. D. Schwellenbestimmung am Froschnerven mit Wechselströmen niederer Frequenz. (Threshold determination on frog nerve with alternating currents of low frequency.) *Pflüg. Arch. f. d. ges. Physiol.*, 1930, 224, 217-229.—(*Biol. Abst.* VII: 3190).

3191. Allen, F. The unitary behavior of the nervous system. *Canadian J. Res.*, 1931, 4, 92-109.—(*Biol. Abst.* VI: 24934).

3192. Altenburger, H., & Kroll, F. W. Über die vegetative Beeinflussung des somatischen Nervensystems. (Vegetative influence on the somatic nervous system.) *Pflügers Arch. f. d. ges. Physiol.*, 1930, 223, 733-743.—(*Biol. Abst.* VII: 865).

3193. Bucy, P. C., & Buchanan, D. N. Studies in the human neuromuscular mechanism. I. The theory of "subsidence of afferent flow" as an explanation of the "lengthening reaction" and other phenomena. *Amer. J. Physiol.*, 1933, 104, 95-112.—"(1) The theory of 'autogenous inhibition' as an explanation of the 'lengthening reaction' (of muscle) rests upon too little evidence to warrant the wide acceptance which it is accorded, although tension which actually endangers the integrity of the muscle and its attachment may produce inhibitory afferent impulses capable of protecting the muscle. (2) A theory which we have termed the 'subsidence of afferent flow,' originally conceived by Fulton and Pi-Suñer, and further greatly supported by the work of Matthews, and Forbes, Campbell and Williams, explains the cessation of action currents during active contraction of the muscle. (3) This theory will not only adequately account for the 'lengthening reaction,' but also explains many of the phenomena seen during the muscular response to the stretch reflex in human skeletal muscle. (4) It has the advantage over the theory of 'autogenous inhibition' that it does not require the addition of further theoretical mechanisms for its explanation."—C. Landis (N. Y. Psychiatric Institute).

3194. Chetchueva, T. A. O nabukhanii nerva pri razlichnikh kontsentratsiyakh khloristogo natriya. (The dilation of nerve in different concentrations of NaCl.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya* etc., 82-92.—The course of the curve of dilation of nerve in different concentrations of NaCl is of one of three types. The first type is for hypertonic solutions and indicates a considerable

decrease in size during the first hour, after which the nerve slowly regains its original mass. The second type is for hypotonic solutions and is marked by a sharp dilation during the first hour which continues more slowly throughout the remainder of twenty-four hours. The third type is for intermediate solutions (.6-.8%) and is characterized by a slow dilation which goes on during twenty-four hours.—E. H. Kemp (Clark).

3195. Cosmovici, N. L., & Cisman, A. Dispositif expérimental servant à mesurer la vitesse de propagation de l'influx nerveux. Relation entre cette vitesse et la vitesse d'une onde élastique. (An experimental set-up to measure the speed of propagation of the nervous impulse. Relation between this speed and that of an elastic wave.) *Arch. int. physiol.*, 1931, 34, 101-109.—(*Biol. Abst.* VII: 869).

3196. Davis, L., & Pollock, L. J. The rôle of the sympathetic nervous system in the production of pain in the head. *Arch. Neur. & Psychiat.*, 1932, 27, 282-293.—(*Biol. Abst.* VII: 3206).

3197. Goldenberg, E. E. K voprosu ob elektricheskikh zaryadakh kolloidov nerva. (The problem of the electric charge in nerve colloids.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya* etc., 72-81.—An excised nerve, if ground in a mortar and shaken with physiological saline, gives a milky suspension which depends upon anodal electrophoresis, that is, it indicates a negative charge. In a physiological solution with strong acid buffers the suspension is at the cathode; with strong alkaline buffers it is at the anode. Between pH=3 and pH=4 the suspension is motionless and is in the most stable suspension; accordingly this is taken to be the isoelectric point. Addition of potassium salts causes a shift toward the acid side; with calcium salts the whole isoelectric zone moves strongly toward the alkaline side. The results seem to warrant the belief that the action of calcium on the structurally intact and living nerve brings about a reduction of the colloid charge in nerve and an approach to the isoelectric condition.—E. H. Kemp (Clark).

3198. Hecht, K. Über den zeitlichen Verlauf der elektrotonischen Ströme bei Registrierung mit dem Saitengalvanometer. (The temporal course of the electrotonic currents as registered with the string galvanometer.) *Zsch. f. Biol.*, 1931, 91, 231-236.—(*Biol. Abst.* VII: 3213).

3199. Hoeffler, P. Versuche über Nervenaktionsströme. I. Technik und Methodik. (Studies on nerve action currents. I. Technique and methodology.) *Zsch. f. Biol.*, 1932, 92, 228-232.—(*Biol. Abst.* VII: 3216).

3200. Jacobson, E. Measurement of the action potentials in the peripheral nerves of man without anaesthetic. *Proc. Soc. Exper. Biol. & Med.*, 1933, 30, 713-715.—Technique and method of obtaining action potentials from the ulnar nerve in man are described. Two types of electrodes were used: (1) a fine platinum-iridium wire which is inserted into the ulnar nerve, with a second wire inserted under the

skin at the point of the elbow; (2) a concentric electrode which is inserted into the ulnar nerve. The apparatus included a string galvanometer and amplifying equipment. Three ways of determining whether the electrode is actually in the nerve are described. Nerve action potentials from trained subjects in a relaxed state were found to be near zero. Ordinary conversation caused no increase in potential. There was a marked increase, however, when the subject matter of the conversation produced an emotional reaction. The potential returned to zero on termination of the conversation and subsequent relaxation. The effect of various stimuli, including sudden noises and visual and cutaneous stimuli, were tried.—*P. Seckler (Clark)*.

3201. Komarov, S. A. O nabukhanii nerva v khloridakh kaliya i kaltsiya pri razlichnikh pH. (The dilation of nerve in KCl and CaCl₂ of different pH.) *In* Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 92-94.—The curve of dilation of the frog's nerve in an isotonic solution of KCl shows a minimal dilation with a pH of 3.8; in isotonic CaCl₂ the typical curve is quite different. The minimum is lower and shifts strongly toward the alkaline end. Also in this latter case there is considerably less dilation.—*E. H. Kemp (Clark)*.

3202. Lanczos, A. Zur Frage der dekrementellen Erregungsleitung. (The problem of decremental conduction of excitation.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 344-350.—(*Biol. Abst.* VI: 18634).

3203. Landa-Glaz, R. I., & Maiman, R. M. Materiali k khimicheskoi topografii mozga. (Data on the chemical topography of the brain.) *In* Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 94-95.—The nitrogen and cholesterol content of the motor area and occipital lobe of the cortex, the optic thalamus, quadrigeminal bodies, and cerebellum of the cat and dog were determined. In twenty-four experiments a greater nitrogen content in the optic thalamus in comparison with other brain fields and a lower nitrogen content in the quadrigeminal bodies of the cat than in the same area in the dog was found. A sharp difference in the cholesterol content in the different brain areas of the cat was observed.—*E. H. Kemp (Clark)*.

3204. Landau, E. Morphology and character. *Character & Personality*, 1933, 1, 238-241.—Through studies of comparative neurology it would appear that the dominant regions for expression of psychic and intellectual personality are in the cortex, particularly in the second frontal convolution and lower parietal fold. But the optic lobes, basal ganglia subjacent to them and the ventricular gray matter may play a part. Furthermore, these regions are subject to the influence of glands and the autonomic nervous system. Thus it is impossible to construct a theory of character based purely on cerebro-anatomical or histological researches.—*M. O. Wilson (Oklahoma)*.

3205. Lapitskii, D. A., & Vasileva, E. I. Ismeneniye funktsionalnikh svoistvo nerva pod vliyoniem ultra-

fioletovikh i infrakrasnikh luchei. (Changes of the functional properties of the nerves under the influence of ultra-violet and infra-red rays.) *In* Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 9-21.—The ultra-violet rays have the effect upon the nerve of a typical parabolic agent in that they arouse an electronegative reaction and, connected with it, a suspension of the capacity for activity in the region of the anode of the constant current. The infra-red rays have a diphasic effect in that they arouse two different and successive kinds of depression. The first ordinarily is accompanied by an electropositive reaction of the tissue; it takes place at the cathode and does not amount to a complete depression of function. The second, like every parabolic depression of function, takes place at the anode and is bound up with a development of negativity. The depression resulting from the infra-red rays is abolished through the effect of the ultra-violet rays. On the other hand the abolition of the capacity for activity which resulted from ultra-violet rays was only slightly affected by the infra-red. The results obtained may be best explained on the basis of a binary theory.—*E. H. Kemp (Clark)*.

3206. Lillie, R. The conditions of recovery of transmissivity of newly repassivated iron wires in nitric acid. *J. Gen. Physiol.*, 1931, 14, 349-361.—(*Biol. Abst.* VI: 18636).

3207. Lindemulder, F. G. Spinal anesthesia. *J. Amer. Med. Assn.*, 1932, 99, 210-212.—The author discusses the effects of spinal anesthesia on the central nervous system in terms of the reflex and neurologic changes and the subjective symptoms reported by the patient. Four cases are described and the literature is reviewed.—*D. J. Ingle (Minnesota)*.

3208. Mansfeld, G., & Hecht, K. Über die Gültigkeit des Alles-oder-nichts-Gesetzes der Erregung. IV. Experimenteller Teil. (The validity of the all-or-none law of excitation. IV. Experimental part.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 227, 788-796.—(*Biol. Abst.* VI: 18637).

3209. Mogendovich, M. R. K voprosu o summirovaniy vozbuзhdenii v alterirovannom uchastke nerva. (Summation of stimulation in an altered region of nerve.) *Russkii fiziol. zh. Sechenova*, 1931, 14, 198-203.—A nerve-muscle preparation of a frog in a moist chamber was stimulated by single induction shocks of maximal strength. A crystal of NaCl (wetted by Ringer's fluid) was placed on the nerve below the electrodes. The single contractions produced by separate induction shocks increased (mostly in height) corresponding to the tetanic single contractions (T.S.C.) described by N. E. Wedensky. These contractions later reached the magnitude and form of separate tetanic contraction corresponding to the "hypertrophic" effect obtained by the author previously during T.S.C. by agents such as Ca, Ba, etc. After some time these contractions acquired a peculiar "veratrin-like" form (contraction followed by relaxation and by a secondary lasting increase usually greater than the first). These are followed by simple single contractions preceding complete non-conductivity

in the altered region of the nerve. Similar results were obtained when the electrodes were placed between the NaCl and the muscle, the only difference being that in the latter case the simple single contractions were observed for an indefinitely long period; the nerve behaved as if cut in the altered region.—(*Biol. Abst.* VII: 3225).

3210. Osawa, M. Beiträge zur Pharmakologie und Physiologie der intra-kardialen Ganglienzellen. (Contribution to the pharmacology and physiology of intracardial ganglion cells.) *Acta Psychol. Keijo*, 1932, 1, 145-156.—Experiments of Matsumura showing the effect of placing ergotamin and yohimbin on the intra-cardial ganglion cells indicate that the normal functioning of these cells is related to the autonomy of heart action. The pure autonomy of early embryonic life must be differentiated from the autonomy of the later embryonic period, in which the activity of these ganglion cells begins to play a part.—E. H. Kemp (Clark).

3211. Ranson, S. W. Cutaneous sensory fibers and sensory conduction. *Arch. Neur. & Psychiat.*, 1931, 26, 1122-1144.—(*Biol. Abst.* VI: 22039).

3212. Rikkl, A. V. Vliyanie mshechnoi raboti na deyatelnost kori golovnogo mozga. (Influence of muscular work on the activity of the brain cortex.) *Russkii fiziol. zh. Sechenova*, 1930, 13, 287-296.—(With English summary.)—(*Biol. Abst.* VI: 22041).

3213. Shubin, N. K voprosu o fiziologii perednei tsentralnoi izvilini. (Physiology of the frontal central convolution.) *Izvestiya Tomskogo Gosudarstvennogo Univ.*, 1926, 78, 365-383.—(*Biol. Abst.* VI: 18654).

3214. Spiegel, E. A. Experimentalstudien am Nervensystem. 17. Rindenerregung (Auslösung epileptiformer Anfälle) durch Labyrinthreizung. Versuch einer Lokalisation der corticalen Labyrinthzentren. (Experimental studies on the nervous system. 17. Cortical excitation (elicitation of epileptic attacks) by labyrinth stimulation. Attempt at a localization of the cortical labyrinth centers.) *Zsch. ges. Neur. u. Psychiat.*, 1932, 138, 178-196.—(*Biol. Abst.* VII: 3237).

3215. Thompson, I. M., & Inman, V. T. A method of outlining cutaneous nerve areas. *Science*, 1933, 77, 216-217.—The authors describe an apparatus and method for outlining cutaneous nerve areas. The method is based on the fact that an area supplied by a nerve may be made insensible to light touch when the nerve trunk is subjected to the influence of an alternating current. The alternating current is supplied by an alternator and best results are obtained by using currents of 100 to 300 cycles/sec., 5 to 10 volts, and 0.5 to 3 milliamperes. The active electrode is placed on the skin over the nerve trunk (the inactive electrode being placed on the opposite arm) and the current is increased and manipulated until at a certain level of current strength testing with a Von Frey hair reveals that tactile sensibility has disappeared in the area supplied by the nerve. The term "masking" is applied to the loss of sensibility, rather than anes-

thesia. The masked area can be outlined on the skin as in the case of peripheral nerve lesion. Outlining a given area on the same subject at various times yields reasonably consistent results. One or two subjects have been encountered, however, with whom the method is not applicable.—C. C. Neet (Clark).

3216. Tower, S. S., & Richter, C. P. Injury and repair within the sympathetic nervous system. I. The preganglionic neurons. *Arch. Neur. & Psychiat.*, 1931, 26, 485-495.—(*Biol. Abst.* VII: 888).

3217. Tschermak, A. Krystallisationsströme und Bioaktionsströme. *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 225-233.—When a supersaturated solution of, preferably, Na acetate trihydrate is inoculated with a crystal of the solute, the spreading wave front of crystallization is electrically positive to the remaining solution. The disturbance is in several respects a model for activity in nerve or muscle.—(*Biol. Abst.* VI: 22046).

3218. Vasilev, L. L. Metodologicheskaya ustanovka eksperimentalnaya rabota sektora fiziologii Leningradskogo Instituta Mozga. (The methodological position and the experimental work in the sector for physiological work of the Leningrad Brain Institute.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 1-8.—E. H. Kemp (Clark).

3219. Vasilev, L. L., & Goldenberg, E. E. [Eds.] *Issledovaniya v oblasti fiziko-khimicheskoi dinamiki nervnogo protsessa*. (Investigations in the field of the physico-chemical dynamics of the nervous processes.) Leningrad: Gosudarstvennii Institut po Izucheniyu Mozga im. Bekhtereva, 1932. Pp. 96. 4r.—E. H. Kemp (Clark).

3220. Vasilev, L. L., & Ivanov, K. I. Deistvie pererazdrzhayushchevo peremennogo toka na alterovannii uchastok nerva. (The effect of an overstimulating alternating current upon the altered nerve tracts.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 31-42.—The over-stimulating alternating current brings about two diametrically opposed changes in the functional condition of nerve fibers which have been altered by the addition of chemical agents. It was found that the current deepened the effect of K and Li ions and weakened the effect of Ca and Ba, which indicates the parabolic and antiparabolic character of the alterations produced by these opposing chemical agents. In the case of the use of Cs ions there was a diphasic effect (deepening, then weakening). With hypertonia a diphasic effect opposite in direction to that produced by the Ca ions was observed.—E. H. Kemp (Clark).

3221. Vasilev, L. L., & Petrov, F. Pervichnaya anodicheskaya depressiya na alterirovannom nerve. (Primary anodal depression in altered nerve.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 42-44.—Between the alteration resulting from calcium and an anodal depression there exists not a unilateral synergism, as was suggested earlier, but a bilateral one. However, a bilateral antagonism is found between the alteration from potassium and an anodal depression.—E. H. Kemp (Clark).

3222. Weiss, P. Das Resonanzprinzip der Nerventätigkeit. (The resonance principle of nerve activity.) *Jahresber. Schlesisch. Ges. Vaterländ. Cultur*, 1930 (1931), 103, 41-44.—(*Biol. Abst. VI*: 24957).

3223. Weisz, S. Beiträge zur Chronaxie des neuromuskulären Apparates. (Contributions to the chronaxy of the neuromuscular apparatus.) *Dtsch. Zsch. f. Nervenhe.*, 1931, 121, 1-33.—(*Biol. Abst. VI*: 22050).

[See also abstracts 3152, 3163, 3176, 3252, 3260, 3280, 3386, 3424.]

MOTOR PHENOMENA AND ACTION

3224. Bannasch, K. Versuche, die Latenzzeit des Muskels mit Hilfe des Mikrophons und Saiten-galvanometers festzustellen. (Attempts to determine the latency time of muscle with the aid of the microphone and string galvanometer.) Berlin: K. Melzer, 1931. Pp. 15.—R. R. Willoughby (Clark).

3225. Bellis, C. J. Reaction time and chronological age. *Proc. Soc. Exper. Biol. & Med.*, 1933, 30, 801-803.—Using as subjects 150 individuals, age range 4 years to 60 years, reaction times to light and to sound were studied. The following results were found: (1) reaction time to sound is always less than that to light; (2) reaction time for males is always less than that of females especially in childhood and late maturity; (3) for both sexes, the shortest times are elicited between the ages of 21 and 30, with decrements approaching from earlier and later ages. The shortest times for males averaged .22 seconds for light and .19 seconds for sound; for females the corresponding figures were .26 seconds and .20 seconds. The records showed that there is a 73% increase in reaction time to light and a 95% increase to sound for the oldest age group over that group including ages 21 through 30 for males, and for females a 70% increase to light and a 110% increase to sound for the same groups. The possibility that there may be some relation between the reaction time vs. chronological age curve and the parallel curve for mental growth is pointed out.—P. Seckler (Clark).

3226. Bilancioni G. Il suono muscolare scoperto da F. M. Grimaldi. (The muscular sound discovered by F. M. Grimaldi.) *Valsalva*, 1932, No. 8, 923-926.—A historical note.—R. Calabresi (Rome).

3227. Book, W. F. Economy and technique of learning. New York: Heath, 1932. Pp. 534. \$2.00.—This is an elementary text divided into five parts: general nature of the learning process; when and why learning occurs; how learning takes place; levels on which learning may take place; and how to make learning most economical and efficient. The experimental material utilized is drawn almost exclusively from the field of non-verbal behavior. The volume contains many questions based on the text, and it also outlines certain experiments to be performed for pedagogical purposes.—W. S. Hunter (Clark).

3228. Broxon, J. W., & Muenzinger, K. F. Isolating the factor of skin potentials. *Psychol. Bull.*, 1933, 30, 256-257.—A note calling attention to the

fact that in their article (previously reviewed by Landis) the authors reported measuring the continuous variations in potential differences without any current flowing through the electrodes.—J. F. Dashiell (North Carolina).

3229. Bunch, M. E., & McTeer, F. D. The influence of punishment during learning upon retroactive inhibition. *J. Exper. Psychol.*, 1932, 15, 473-495.—Human maze learning was chosen as the problem, and the administration of an electric shock in punishment for errors as the experimental condition whose influence upon retroactive inhibition was tested. 110 subjects were used. Two stylus mazes were mastered by the whole method at one sitting. Administering punishment during mastery resulted in much quicker learning and reduction of errors. Punishment for errors during learning resulted in a greater retention of the maze solution when retention is measured by the relearning method. Mastery of a second maze three weeks after the learning of the first and three weeks before the retention test of the latter resulted in marked retroactive inhibition by all criteria except trials. The detrimental effect of the second maze upon the first was less than half as great when original learning occurred under punishment as when it occurred under normal non-punishment conditions. The amount of retroactive inhibition resulting from acquisition of a second maze is also reduced nearly half when punishment is administered for errors during the learning of the interpolated maze problem.—S. Renshaw (Ohio State).

3230. Buzolanu, G. Recherches relatives au mécanisme de production de l'épreuve calorique de Bárány. (Researches on the mechanism of production of the caloric test of Bárány.) *Arch. int. laryngol., otol.-rhinol., et broncho-oesoph.*, 1930, 9, 680-693.—(*Biol. Abst. VI*: 18615).

3231. Chistyakov, G. A. Izmeneniya fizicheskikh i fiziologicheskikh priznakov v svyazi s voprosami ob obektivnoi otsenke utomleniya i o korreliatsiyakh mezhdu morfologicheskimi i funktsionalnymi osobennostyami. (Changes in physical and physiological symptoms in connection with objective evaluation of fatigue and correlation between morphologic and functional peculiarities.) *Materiali po antrop. Ukraini*, 1927, 3, 223-260.—(With French résumé.)—(*Biol. Abst. VII*: 3203).

3232. Condó Arena, N. Come bisogna interpretare il segno del facciale. (How to interpret the appearance of the facial reflex.) *Pensiero ostet.-ped.*, 1932, No. 2, 9-12.—The appearance of the facial reflex is a symptom of neuro-muscular excitability, the excitants of which are found in the anatomical and physiological conditions of the nervous system, modified by morbid influences.—R. Calabresi (Rome).

3233. Dill, D., Edwards, H., Bauer, P., & Levenson, E. Physical performance in relation to external temperature. *Arbeitsphysiol.* 1931, 4, 508-518.—(*Biol. Abst. VI*: 18662).

3234. Engelmann, B. Arbeitsphysiologische Studie. IX. Das Tragen von Lasten über eine ansteigende Strecke. (Studies in work physiology. IX.

The carrying of burdens over a rising path.) *Arbeitsphysiol.*, 1931, 5, 49-66.—(*Biol. Abst.* VI: 22053).

3235. Eyre, M. B., & Schmeeckle, M. M. A study of handedness, eyedness, and footedness. *Child Development*, 1933, 4, 73-78.—280 junior high school students "were tested to ascertain what correspondence, if any, exists between eye, hand, and foot preference. 200 subjects had normal visual acuity . . . and 80 subjects had defective visual acuity in one or both eyes. The fixation test was used to determine ocular dominance. . . . Hand preference was determined by pointing and by writing. Foot preference was tested by noting which foot was used in pushing and in kicking. The following conclusions may be drawn: (1) There is a high correspondence of eye, hand, and foot preference in the human subject. (2) The correspondence of hand and foot preference is greater than the correspondence of eye and hand, or eye and foot preference. (3) Defective visual acuity, if defect is the same in both eyes, does not show an effect upon eyedness. (4) Where defective visual acuity is greater in one eye than in the other total correspondence of eye, hand, and foot preference tends to decrease." 5 references.—*F. D. McTeer* (Detroit City College).

3236. Fisher, I. Wirkungsgrad und Ermüdung. (Efficiency and fatigue.) *Arbeitsphysiol.*, 1931, 4, 109-127.—(*Biol. Abst.* VI: 18666).

3237. Gorkin, S. Die Beziehungen zwischen der Länge des arbeitenden Muskels und dem Energieverbrauch. II. Teil. (The relations between the length of the working muscle and the utilization of energy. II.) *Arbeitsphysiol.*, 1931, 4, 80-96.—(*Biol. Abst.* VI: 18668).

3238. Haskovec, L. Nature et importance des réflexes. (Nature and importance of reflexes.) *Arch. int. pharmacodyn. et therap.*, 1930, 38, 228-249.—(*Biol. Abst.* VI: 22025).

3239. Hirvonen, M. Über die Reizbarkeit des Gesamtmuskels bei elektrischer Reizung. (On the irritability of the total muscle under electrical stimulation.) *Skand. Arch. f. Physiol.*, 1932, 63, 1-99.—The writer describes a new approach to a basic problem of electrophysiology concerning the relationship between the capacity of the condenser whose discharge is necessary to produce a certain muscular contraction and the voltage. The electric stimulus furnished by a condenser of a certain capacity requires a definite voltage in order that it may produce a contraction effect. In most of the previous work in this field, the liminal contraction was studied and the rheobase and chronaxy determined. A particular feature of the present investigation is that contractions above the liminal were also considered and thus the necessary relationship between capacity and voltage to produce the supraliminal effects were determined. By this method, according to the "motor unit" theory of Sherrington and the "all or none" law, it should be possible to investigate the different motor elements of the total muscle. Different stimulation methods (fluid electrode for homogeneous stimulation of all nerve fibers, direct stimulation of the muscle, etc.)

were employed. The quantitative results are plotted in curves (capacity expressed in μf as abscissa, and voltage expressed in V as ordinate). The curves are parallel for the liminal and the supraliminal contractions in the same muscle, which is taken to mean that the various motor units of a muscle have similar quantitative properties. The formula of Hoorweg for computing the parameter values applies also to the curves obtained in the experiment with supraliminal contractions. The mathematical properties of the curves are carefully discussed. Extensive footnote references.—*L. Kardos* (Mooseheart Laboratory for Child Research).

3240. Ivanov, E. P. Obrazovanie uslovnikh reflektsov na zhelchotdelenie. (Formation of conditioned reflex bile secretion.) *Russki fiziol. zh.*, 1930, 13, 281-286.—(With English summary.)—(*Biol. Abst.* VI: 22030).

3241. Jaccard, P. Le sens de la direction et l'orientation lointaine chez l'homme. (The sense of direction and distant orientation in man.) Paris: Payot, 1932. Fr. 20.—Does the man living in the wilds possess an innate knowledge of direction in space, permitting him to traverse without errors vast forests, steppes or deserts, even when deprived of guiding marks or marked roads? Does an organ corresponding to a compass exist in human beings? Have we the rudiments of a sixth sense of orientation, analogous to that which is generally attributed to bees, ants, and homing pigeons? In reality, states the author, primitives orient themselves in the same way we do, and their exploits as guides and hunters must be attributed simply to a development of their faculties of observation, intelligence and memory. Deprived of external clues, the savage is as lost as the civilized person. It is the same with an animal, which directs itself just as we do, by external clues and recognition of places. The whole question of sense of direction is actually a vast pseudo-problem, the illusion of which it was necessary to demonstrate. The study contains an original study of the natural processes of distance orientation.—*Math. H. Piéron* (Sorbonne).

3242. Katz, D. Die Gesetz der Nahrungsaufnahme in ihrer grundsätzlichen Bedeutung für die Bedürfnispsychologie. (The laws of food intake in their fundamental significance for the psychology of need.) *Indus. Psychotechn.*, 1933, 10, 28-29.—Katz argues that all human needs, wants or desires, whether physiological or social, should be studied by psychology in the same way as hunger and some of the other physiological needs are studied. The factors which determine food intake are appetite, undernourishment or over-indulgence, and various physiological conditions of the organism, as well as all the external circumstances and the appearance of the food, etc. These physiological and social factors are also fundamental for all other human needs.—*C. Burri* (Chicago).

3243. Lehmann, G. Die Beziehungen zwischen der Länge des arbeitenden Muskels und dem Energieverbrauch. I. Teil. (The relations between the

length of the working muscle and the utilization of energy. 1.) *Arbeitsphysiol.*, 1931, 4, 71-85.—(*Biol. Abst.* VI: 18670).

3244. Lindberg, A. A. Velichina uslovnogo reflexa pri raznoy prodolzhitelnosti i raznikh sposobakh podkrepleniya bezuslovnogo razdrazhitelia. (The size of the conditioned reflex as dependent on duration and method of presentation of the food stimulus.) *Trudi ukr. psikhonevrol. instit.*, 1932, 21, 141-154.—The usual method of feeding used in the laboratory consisted in having the animal eat for a certain period of time out of a large vessel filled with food and then withdrawing the vessel while it still contained food. This was repeated many times in succession. The dogs very soon reacted to these conditions by discontinuing eating before the conclusion of the usual feeding period, by a marked decrease in the size of the conditioned food reflexes, and even by a complete refusal to eat out of the food vessel. The author assumes that the deprivation of the stimulus at the height of the alimentary excitation compelled the animal to suppress this excitation by developing a strong inhibitory process. The inhibition phenomena disappeared when the method of feeding was changed and the dog was given only the amount of food that he was able to take during the time allowed.—E. Hanfmann (Worcester State Hospital).

3245. Luisada, A. Il tono muscolare e le distonie secondo recenti vedute. (Muscular tonus and dystonia according to recent theories.) *Rass. int. clin. e terap.*, 1932, No. 5, 223-243.—After a review of the anatomical bases in question, the author reports the results of his experiments dealing with the theory of quadruple innervation of the striated muscles.—R. Calabresi (Rome).

3246. Magnitskii, A. N. Utomlenie i tormozhenie. IV. K voprosu o vliyani mshchechnogo utomleniya na reflektornuyu vozбудinosti i Sechenovskoe tormozhenie. (Fatigue and inhibition. IV. Effect of muscle fatigue upon reflex excitability and Sechenov's inhibition.) *Zh. eksper. med.*, 1928, 1, 18-28.—In 105 experiments on *Rana esculenta*, fatigue was produced by indirect stimulation of the muscles of the foreleg or of m. gastrocnemius of the hind leg, or by direct muscle stimulation. Inhibition of Sechenov's type was secured by electric stimulation of the brain. Soon after the beginning of muscle contractions the latent period of the reflex sharply increased (fall of reflex excitability). Stimulation of the brain not only did not cause inhibition of the reflex (Sechenov's inhibition), but, on the contrary, often diminished its latent period. This change remained sometimes until complete exhaustion of the working muscle. Often, prior to such exhaustion, a second phase appeared in which inhibition became stronger than normal, while the reflex excitability increased. Upon cessation of muscle stimulation, the functional state of the central nervous system gradually returned to normal; where the second phase was present, the central nervous system before returning to normal passed again through the first phase. The above effect did not depend on whether the stimulated

nerve was cut or not; nor did the cutting of all nerve roots on the side of the working muscle change this effect. It occurred, also, in the presence of different rhythms, as well as in tetanic stimulation of the muscle. This effect, however, disappeared if the vessels of the stimulated muscle were previously ligated. (German summary.)—(*Biol. Abst.* VII: 3283.)

3247. Magnitskii, A. N., & Snyakin, P. G. Utomlenie i tormozhenie. V. Vliyanie nagruzki na pessimum. (Fatigue and inhibition. V. Effect of loading upon the pessimum.) *Zh. eksper. med.*, 1928, 1, 29-38.—Experiments were conducted on nerve-muscle preparation (95), and on the whole frog (29). Loading was increased from 1 to 30 gm.; this caused increase of inhibiting processes in the muscle, the "pessimum" (maximum inhibition) occurring after excitations of less strength than normal. Freed from this additional loading, the muscle returned to the normal state. Additional loading also lowered the interval between the threshold of irritation and threshold of "pessimum." Results in both series of experiments were identical. (German summary.)—(*Biol. Abst.* VII: 3284.)

3248. Mogendovich, M. R. Deistvie anoda i katoda postoyannogo toka na spinno-mozgovie refleksi. (The effect of the anode and cathode of the direct current on the spinal reflexes.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 45-51.—The anode and cathode of a constant current have essentially the same influence on simple motor mechanisms as on the nerve trunk—a depressing effect for the former and an excitatory one for the latter. It may be possible to arrive at an understanding of phenomena observed when the anode and cathode of a constant current are placed in the central nervous system. Externally the depression which develops in the two cases is similar and is characterized by an inactivity of the motor apparatus. The binary theory of depression offers in this connection a fruitful working hypothesis, which may help to provide orientation in the little investigated central processes.—E. H. Kemp (Clark).

3249. Okuneva, I., Steinbach, E., & Stscheglova, L. Über den Einfluss des Hebens und Haltens von Lasten auf die Uterus-Position. (The influence of lifting and holding burdens on the position of the uterus.) *Arbeitsphysiol.*, 1931, 4, 363-378.—(*Biol. Abst.* VI: 18674).

3250. Oseretzky, N. Psychomotorik, Methoden zur Untersuchungen der Motorik. (Methods of investigation of psychomotor activity.) *Beih. z. Zsch. f. angew. Psychol.*, 1931, No. 57. Pp. 162.—Part I outlines a schema for the systematic observation of various general motor characteristics. These include body posture, pose, visual expression, mimicry, gesticulation, hand-shaking, gait, speech, handwriting, protective movements, pathological movements, and an extensive discussion of hand measurements and structure in relation to mental types. Part II deals with the measurement of motor ability and contains a revised scale of the author's, designed for individual testing of motor ability in children from 4 to 16 years

of age. A score is calculated. Crude norms are indicated. A method for group testing is also given. Tests of manual dexterity (tapping, dynamometry, etc.) devised by other authors are described. Part III summarizes recommended tests of certain specific aspects of movement such as tests of "static and dynamic coordination," speed of reaction, accuracy, and direction of movement, habituation, simultaneous movement, rhythm and tempo, tonus, force and energy of movement. Part IV enumerates briefly some methods of recording movement.—H. Peak (Yale).

3251. Philippowitsch, S. Eine Untersuchung der optimalen Bedingungen beim Hammerschlag. (An investigation of optimal conditions in hammer striking.) *Arbeitsphysiol.*, 1931, 4, 278-292.—(*Biol. Abst.* VI: 18675).

3252. Ranson, S. W., & Hinsey, J. C. The contralateral flexor reflex, rebound phenomena, co-contraction and reciprocal innervation in spinal and in decerebrate cats. *Arch. Neur. & Psychiat.*, 1931, 26, 247-267.—(*Biol. Abst.* VI: 22038.)

3253. Regan, J. F. The action of insulin on the motility of the empty stomach. *Amer. J. Physiol.*, 1933, 104, 90-94.—The intravenous injection of insulin in normal dogs produces a primary depression of tonus and contractions of the stomach followed by an increase in tonus and gastric activity which passes into incomplete gastric tetany. This is attributed to the stimulation of the sympathetic nervous system by the insulin, which produces a fall in tone and a quiescence of the stomach, acceleration of the heart rate, sweating, constriction of the blood vessels and dilatation of the pupils in man. The gastric hunger contractions following insulin can be inhibited by the injection of atropine.—C. Landis (N. Y. Psychiatric Institute).

3254. Sassa, K., & Kawashima, S. Studien über Sehnenreflexe. Über die Messung des Sehnenreflexes am Quadricepspräparat der enthirnten Katze. (Studies on the tendon reflexes. The measurement of the tendon reflexes in the quadriceps preparation of the decerebrate cat.) [Papers of the Medical Society of Tokio], 1930, 44, 267-279.—In Japanese, with German summary.—(*Biol. Abst.* VII: 3232).

3255. Semernina, A. V. Otritsatelniye uslovniye reflexi, poluchayemiye sovpadeniyem razdrzhitel'nykh tormoznim sostoyaniyem, vizvannim ugasaniyem uslovnikh reflexov. (Negative conditioned reflexes formed by the coincidence of a stimulus with the process of inhibition caused by extinction of conditioned reflexes.) *Trudi ukr. psikhonevrol. instit.*, 1932, 21, 84-90.—Volborth had found that an indifferent stimulus can acquire an inhibitory action by being made to coincide repeatedly with the process of inhibition caused by extinction of a conditioned reflex. Pavlov, however, pointed out that a frequent repetition of a stimulus is in itself sufficient to make it an inhibitory agent. Therefore the author repeated Volborth's experiments using, besides the stimulus coinciding with the extinguished reflex, a control stimulus that was repeated by itself as many times

as the first one. The inhibitory effect displayed by the first stimulus after 10 repetitions proved much stronger than that of the second.—E. Hanfmann (Worcester State Hospital).

3256. Smith, J. M. The sensory function of the non-preferred hand. *J. Exper. Psychol.*, 1933, 16, 271-282.—In order to test the hypothesis of sensory preference for the non-preferred motor hand, these experiments were performed: three groups of persons, right-handed, left-handed, and ambidextrous, replaced the blocks in the Goddard form-board when blindfolded. Each subject was also tested for eye dominance. Preference for the non-preferred motor hand in feeling the shapes of the depressions in the form-board was shown by both right- and left-handed groups. Left-handed subjects who had been trained to perform some motor activities with the right hand show the same preference for the right hand in feeling. 70.3% of all subjects showed right eye dominance, with no relationship between eyedness and motor hand preference. The pronounced sensory preference shown for the non-preferred motor hand is thought to be not the result of, but causally independent of, the motor preference.—E. H. Kemp (Clark).

3257. Stetson, R. H., & Bouman, H. D. The action current as a measure of muscle contraction. *Science*, 1933, 77, 219-221.—The authors describe a method by which the summated action current can be used as a measure of the degree of muscle contraction. The action-current disturbances from the contracting muscle are amplified, rectified, summated by a ballistic galvanometer and photographically recorded. To obtain a measure of the degree of contraction of the muscle the authors made use of the type of movement known as ballistic, which can be readily executed by skilled pianists. In this movement "the flexor group actuates the forearm by a sudden pulse which has a uniform duration of about 45 sigma; it is quite unopposed by the extensors and sets the limb in motion with a very rapid acceleration, whereafter for three fourths of the stroke the limb swings free by momentum with a uniform velocity which is easily measured." Under given conditions the length of the stroke varies with the velocity, and since the mass of the moving limb is constant and the path of the excursion can be made constant, "the velocity of the ballistic movements becomes a measure of the varying force of the contractions." It was found that the ratio of velocity of movement to summated action current varied within 10%. The equation (a Excursion $+ b =$ Ac. current) was found to fit the data when the movements took place against a fixed tension, which "indicates that a constant number of fibers is employed in overcoming the fixed resistance." With to-and-fro ballistic movements repeated in series the results are much more precise. An ocular demonstration of the quantitative relation between action current and muscle contraction is made by sending the amplified, rectified current through a milliammeter or a level indicator; the oscillating pointer indicates a midpoint for the series of contractions from a series of horizontal ballistic move-

ments. Results of recordings fit the all-or-none hypothesis of muscle contraction.—C. C. Neel (Clark).

3258. Travis, L. E., & Lindsley, D. B. An action current study of handedness in relation to stuttering. *J. Exper. Psychol.*, 1933, 16, 258-270.—Using a three-stage resistance-coupled amplifier, a Westinghouse oscillograph, and a special photographic unit, the critical point (the amount of muscular contraction beyond which the action current frequency decreases with additional increases in intensity of contraction) was determined for a left-handed and a right-handed group of normal speakers and for a group of presumably right-handed stutterers. For classification into groups the history, laterality index, and an eyedness test were used. For 52% of the stutterers the critical point was greater in the left than in the right arm, while in 13% the critical point was the same for the two arms. For all but one of the normal speakers the critical point was greater in the preferred than in the non-preferred arm. These findings were thought to support the view that in many stutterers the stuttering is indicative of a disturbance in the normal hierarchic control of the two cerebral hemispheres over the peripheral speech mechanism.—E. H. Kemp (Clark).

3259. Travis, L. E., & Patterson, M. Rate and direction of the contraction wave in muscle during voluntary and reflex movement. *J. Exper. Psychol.*, 1933, 16, 208-221.—The action-current technique was utilized. The average conduction rate for quadriceps femoris in reflex activity was 59.9 m. in a range of 29.7 to 145.1 m. per second; that of gastrocnemius in reflex activity was 57.6 m. in a range of 38.1 to 94.9 m. per second. The direction of the wave in both muscles during reflex and voluntary activity was from proximal to distal. In the quadriceps femoris the contraction wave in reflex activity moved away in opposite directions from a certain point or area in the muscle. This point was designated the physiological motor point. The contraction wave in reflex activity was different from that in voluntary activity in its brevity and in a more striking similarity between individual records of a given series. The contraction wave in reflex and in voluntary activity were similar in the imperfect duplication of the pattern of action-current waves from one point on the muscle by the pattern of action current waves from any other point on the muscle.—E. H. Kemp (Clark).

3260. Vasilev, L. L., Delov, V. E., & Mogendovich, M. R. Elektrograficheskoe issledovanie tetanizirovannogo odinochnogo sokrascheniya. (The electrographic investigation of a tetanized single contraction.) In Vasilev, L. L., & Goldenberg, E. E., *Issledovaniya etc.*, 21-31.—Action currents were led off from the muscle of the nerve-muscle preparation of *Rana temporaria* through a string galvanometer. Super-addition of single maximal stimuli to threshold tetanization elicited a series of sub-maximal and uniform action currents from the muscle, which corresponded with the rhythm of the tetanizing stimulation. With supra-threshold tetanization the action currents were temporarily heightened. Alteration

of the tetanized region with Ba or Ca ions along with sub- or supra-threshold stimulation led to a permanent tetanized contraction. A sub-threshold tetanization of the altered region, which originally gave no action currents, began to bring about oscillations of increasing amplitude. K ions produced a rapid depression of the mechanical as well as the electrical effect of tetanizing stimulation. The phenomenon of single tetanized contraction seems to be due to an increase in excitability in the nerve at the expiration of the single waves of activity.—E. H. Kemp (Clark).

3261. Verzar, F., & Weiss, P. Untersuchungen über das Phänomen der identischen Bewegungsfunktion mehrfacher benachbarter Extremitäten. Zugleich direkte Vorführung von Eigenreflexen. (Investigations on the phenomenon of identical motor functions of multiple adjacent extremities; with direct elicitation of automatic reflexes.) *Pflüg. Arch. f. d. ges. Physiol.*, 1930, 223, 671-684.—(Biol. Abst. VII: 889.)

3262. Volborth, G. V. Rezkoye povisheniye pishchevoy vzbudimosti u sobak, podkarmivayemikh v kamere bez primeneniya uslovnykh razdrzhitel'ev. (A marked increase in alimentary excitability of dogs fed in the experimental chamber without application of conditioned stimuli.) *Trudi ukr. psikhonevrol. instit.*, 1932, 21, 99-107.—Previous to the establishment of conditioned reflexes two dogs were trained for some days in the usual experimental setting where they were fed 5-6 times a day without any other stimuli being applied to them. After several days the animals showed such increased excitability when placed in the experimental situation that any stimulus applied for the first time (bell, tone, metronome) produced the food reaction. The author maintains that in the traditional experiments this high excitability does not appear upon the first application of new stimuli because of the inhibition resulting from the strange situation.—E. Hanfmann (Worcester State Hospital).

3263. Vorobyov, A. M. K voprosu o spetsificheskoy pishchevoy vzbudimosti v svyazi s razlichnymi pishchevimi regimami. (Specific food excitability in relation to various diets.) *Trudi ukr. psikhonevrol. instit.*, 1932, 21, 161-169.—Experiments of the author prove that the fluctuations in the size of the conditioned reflexes depend, among other things, on the changes in the daily diet of the animal. If the animals are fed exclusively on the same food which is used in the experiments to provoke unconditioned reflexes, then there is a marked decrease in the size of the conditioned reflexes, especially of the newly established ones.—E. Hanfmann (Worcester State Hospital).

3264. Vorobyov, A. M. O zavisimosti uslovnogo refleksa ot kolichestva podkrepleniya ego bezuslovnyim. (The size of conditioned reflex as dependent on the frequency of its reinforcement by an unconditioned reflex.) *Trudi ukr. psikhonevrol. instit.*, 1932, 21, 155-160.—In forming conditioned reflexes the stimulus was made to coincide with the unconditioned reflex once, twice or three times a day. The results

in terms of the size of conditioned reflexes were not uniform owing to the arousal of the process of inhibition with repeated reinforcement and to the influence of many other variables.—E. Hanfmann (Worcester State Hospital).

3265. Vorobyov, A. M., & Lindberg, A. A. Ob izmeneniyakh velichini bezuslovnogo slunnogo refleksa pri prisoyedinenii k nemu razdrazhitel' pri virabotke uslovnikh refleksov. (Changes in the unconditioned salivary reflex as a consequence of applying conditioned stimuli.) *Trudi ukr. psikhonevrolog. instit.*, 1932, 21, 126-140.—Of 9 dogs, all equally familiar with the experimental situation, some responded to the first application of a new stimulus (bell, light) with an increase and some with a decrease of the subsequent unconditioned salivary reflex, while the third group showed irregular changes or no changes at all.—E. Hanfmann (Worcester State Hospital).

3266. Vozerskaya-Nikolaeva, N. A. Utomlenie i tormozhenie. III. Vliyanie pessimuma utomleniya na reduksionnye svoystva mishechnoi tkani. (Fatigue and inhibition. III. Effect of the pessimum and fatigue upon the reducing properties of muscle tissue.) *Zh. eksper. med.*, 1928, 1, 11-17.—Muscles of the hind legs of *Rana temporaria* were subjected to fatigue or to "pessimum" irritation (the author defines pessimum as a state in which muscle inhibition is manifested at its purest), cut into minute pieces, and placed in methylene blue solution. Decoloration of the methylene blue by the resting muscles of both hind legs occurred almost simultaneously. Decoloration by the fatigued muscle, as compared to control, was slower. Decoloration by the inhibited ("pessimum" irritated) muscle occurred in 86% either simultaneously with, or more rapidly than, in the control; retardation was seen in 14% only. It is concluded that in muscle inhibition the chemical properties of the muscle differ from those in fatigue and approach those in repose, so far as decoloration of methylene blue is concerned. (German summary.)—(*Biol. Abst.* VII: 3301).

3267. Walthard, K. M. Ueber das normale Verschwinden der Rückenreflexe. (The normal disappearance of the back reflex.) *Schweiz. med. Woch.*, 1931, 61, 857-860.—(*Biol. Abst.* VII: 3242).

3268. Zapan, G. Uebbarkeit verschiedener Aufgaben. (Improvement of different tasks with practice.) *Psychotechn. Zsch.*, 1932, 7, 139: 175-186.—The effect of practice varies in different tasks. In order to discover some of the conditions which influence the effect of training, several different tasks were employed, viz., running a wire maze, typing, and writing and reading shorthand. These tasks were presented to the subjects in two ways so that a low and a high degree of practice effect were obtained. The results, in general, show that the effectiveness of practice of a given activity increases: (1) if the content of the learning material remains constant rather than if it varies; (2) if the environmental configuration facilitates rather than inhibits learning; (3) if different parts of the learning situation form a good rather than a bad configuration; (4) if abstract

rules can be replaced by concrete examples, as against the case in which no such substitution is possible; (5) if the learning material is meaningful rather than meaningless; (6) if during the process of training more and more accurate adjustment to the task may be obtained through the dropping of unessential parts or through readjusting the material according to specific needs, as against a learning situation which does not allow such close adjustment; finally, (7) when the learning situation may be progressively simplified, rather than remaining constant. In general, the highest profit from practice can be obtained when the organismic-environmental factors of the learning situation are well integrated, so that they form an organized whole.—C. Burri (Chicago).

[See also abstracts 3163, 3173, 3182, 3186, 3188, 3189, 3193, 3212, 3223, 3281, 3282, 3294, 3300, 3317, 3334, 3387, 3429, 3438, 3490, 3514, 3526, 3534, 3554, 3555.]

PLANT AND ANIMAL BEHAVIOR

3269. Bailey, F. W., & Riley, C. F. C. Color vision and the formation of associations with reference to light of various wave-lengths in the parakeet, *Melopsittacus undulatus* (Shaw). *Trans. Roy. Canad. Inst.*, 1931, 18, 47-115.—Parakeets were tested as to: (1) Color preference. Food was placed in front of gelatine filters admitting light ranging in color from red to violet as in the solar spectrum. Hungry parakeets, dark-adapted, responded most readily to orange-red and blue-green, i.e., to colors with relatively low brightness but high saturation, lying near the ends of the visible spectrum; and least to yellow and green. Their color preference curve corresponded to that of man. (2) Color discrimination. When the birds had been trained to react to a given color, a second color was then shown with the first. They showed ability to discriminate red and various hues of red from blue and various hues of blue; to discriminate blue and various hues of blue from green and hues of green; and to discriminate between these three colors and gray. (3) Association. The birds learned to associate position of compartment with food, i.e., the left or right of a given series of compartments, but failed to learn to associate position with color, i.e., red with a left-hand compartment. There was also evidence of lack of ability to perceive time relations as distinct from space relations. The authors conclude that the intelligence of birds is not above the level of "associative memory."—(*Biol. Abstr.* VII: 842).

3270. Barron, D. H. Some factors influencing the susceptibility of albino rats to injections of sodium amytal. *Science*, 1933, 77, 372-373.—Previous investigations on the use of sodium amytal as an anesthetic for albino rats have revealed a sex difference in reaction to the drug. In addition, the concentration of the solution in which the anesthetic was given was found to have a marked effect upon its efficacy. In the present study these two facts have been investigated by the author in an attempt to analyze further the action of the anesthetic. A record

was kept of the amount of sodium amytal in a 10% solution required to produce anesthesia in male and female animals of weights ranging between 30 and 400 grams. A total of over 1000 observations were made on animals of varying weights. Results show that the weight at which the sex difference appears—between 50 and 60 grams—is also the weight at which the differential growth relation of both the hypophysis and the suprarenals first appear between the males and females. In studying the effect of the dilution of sodium amytal with which anesthesia is produced it was found that the animals were much more resistant to equal quantities of the drug if administered in more dilute solutions.—*H. W. Karn (Clark)*.

3271. Beling, I. Über das Zeitgedächtnis der Biene. (Time memory in the bee.) *Zsch. f. vergleich. Physiol.*, 1929, 9, 259-338.—(*Biol. Abst.* VI: 18582).

3272. Bennitt, R. Physiological interrelationship in the eyes of decapod Crustacea. *Physiol. Zool.*, 1932, 5, 49-64.—(*Biol. Abst.* VII: 845).

3273. Beyer, K. M., & Child, C. M. The reconstitution of lateral pieces of *Planaria dorotocephala* and *Planaria maculata*. *Physiol. Zool.*, 1930, 3, 342-365.—Half-transverse pieces include a part of one of the longitudinal nerve cords; lateral pieces, only lateral branches, which, however, have the same structure as the cords. Possible factors concerned in localization of anterior ends are discussed, and it is concluded that, while the part of the nervous system present in the piece may play a rôle in localization of the anterior end through its influence on the cells about it, it does not determine the anterior end, nor is it an essential factor in its localization. The central nervous system is an expression of the chief body gradients, and these gradients, or new gradients determined in the piece by conditions of experiment, are believed to be the only factors adequate to account for the observed facts of localization.—(*Biol. Abst.* VI: 24915).

3274. Bierens de Haan, J. A. Neuere Untersuchungen über die höheren Formen der tierischen Intelligenz. (Recent investigations on the higher forms of animal intelligence.) *Zool. Anz., Supplementbd.*, 1931, 5, 39-66.—The author gives a survey of the work of the last decades on the higher forms of intelligence in animals. He defines "intelligence" as the faculty of the animal to keep impressions in the form of experience and to use this in later occasions; by the higher forms of this intelligence is meant the faculty of grasping or of learning to grasp relations, not directly given in the perception, based on individually acquired experience. For this higher form of intelligence the author has proposed the term "concrete comprehension" (*konkretes Verständnis*). He distinguishes three forms of this concrete comprehension in animals, viz., a grasping of relations of space, time, and effect. Of this first type the author then discusses the multiple-choice problem, studied by Yerkes and others, and the problem of making roundabouts and short-cuts in mazes. Of the second type he discusses the problem of alternation, studied by Carr and by Hunter in his "temporal maze."

The most important are, however, the cases in which the animal shows ability to grasp relations of effect. Here the author discusses the question where in the animal world such a comprehension is to be found, explains the differences between primary and secondary comprehension of relations, and gives a survey of the highest form of animal intelligence, viz., the using and construction of tools.—(*Biol. Abst.* VII: 821).

3275. Blair, E. A., & Erlanger, J. Comparison of individual axons in the frog. *Proc. Soc. Exper. Biol. & Med.*, 1933, 30, 728-729.—Measurements of the duration of axon potentials are made by employing nerves containing only a few fibers at the lead, long distance of conduction, and very high amplification. In this way the undistorted potentials and characteristics of most of the constituent axons could be recorded discretely. Although the results seem to indicate to some extent that there are fiber types distinguishable by time to arrive at a maximum of potential, conduction rate, irritability, refractory period, and amplitude of potential, the authors feel that their results do not support these facts definitely, due to their variability. Despite this, the authors state that it is no longer incumbent upon physiologists to adhere to the doctrine of specific nerve energies, since it is possible to recognize differences in the physiological responses of the individual axons.—*P. Seckler (Clark)*.

3276. Cole, W. H., & Allison, J. B. Stimulation by the mineral acids, hydrochloric, sulfuric, and nitric, in the sunfish *Eupomotis*. *J. Gen. Physiol.*, 1933, 16, 677-684.—The stimulating efficiency of the mineral acids is measured in the sunfish by a method which is described. The results show that such stimulation is primarily dependent on the (H+) produced in the animal's aquatic environment, and that the reaction time (minus a constant) is a linear function of log (H+). Variation in reaction time is also a function of this same variable.—*C. H. Graham (Clark)*.

3277. Crow, S. The sensitivity of the legs of certain Calliphoridae to saccharose. *Physiol. Zool.*, 1932, 5, 16-35.—(*Biol. Abst.* VII: 847).

3278. Crowe, S. J., Hughson, W., & Witting, E. G. Function of the tensor tympani muscle. An experimental study. *Arch. Otolaryngol.*, 1931, 14, 575-580.—In seven "animals" (cats?) the 256 and 512 d.v. tuning forks were heard with normal intensity 9 days after section of the tensor tympani tendon. Higher tones were almost completely inaudible in the loud speaker. By no other procedure was it possible to eliminate or reduce the transmission of high tones without reducing low tones equally. Tension on the tensor tympani tendon increased the rigidity of the ossicular chain and impaired the transmission of all low tones. Division of the tensor tympani resulted after 10 days in a relaxation of the ossicular chain and a rotation of the malleus on its long axis, and impaired the transmission of high tones. After an almost complete elimination of the transmission of high tones, pressure on the round window membrane counter-

acted the effect of the division of the tensor tympani tendon, and the transmission of high tones returned with a volume and clarity better than that observed in normal animals.—(*Biol. Abst.* VII: 848).

3279. Frisch, K. v. *Versuche über den Geschmackssinn der Bienen.* III. (Investigations on the gustatory sense of bees. III.) *Naturwiss.*, 1930, 18, 169-174.—Saccharine, dulcine, glucine, and even some sugars (pentoses), that are sweet for man are tasteless for bees. Even some mono-, di-, and tri-saccharides are tasteless for bees. All sugars that occur in nectar are sweet for bees, but not all substances sweet for bees are found in flowers. Phillips found that bees lived exclusively on glucose, fructose, saccharose, trehalose, maltose, or melezitose for an indefinite time, but that those fed galactose, mannose, lactose, raffinose, arabinose, xylose, rhamnose, or mannitol lived no longer than controls fed only water. Experiments by Trudel indicate that the sense of taste in fishes is similar to that of man. Weiss found little qualitative difference between the gustatory sense of butterfly tarsi and the proboscides of bees. The tarsi detect greater dilutions of sugar than can either the human tongue or the proboscides of bees. Butterflies react to some sugars (raffinose) that are tasteless to bees. Some flies whose tarsi are insensitive to lactose can detect this substance with the proboscis. There appears to be no connection between the molecular structure and the sensation of sweetness. Bees refuse sugar solutions containing mixtures of any two of the following substances: quinine hydrochloride (1/8000 M), HCl (1/2 M), and NaCl (1/4 M). Curiously enough, the bees objected more to high concentrations of one of these substances than to a lower concentration of any two of them. As yet we do not know whether or not bees distinguish between salt, sour, and bitter substances.—(*Biol. Abst.* VII: 850).

3280. Fulton, J. F., & Keller, A. D. *The sign of Babinski. A study of the evolution of cortical dominance in primates.* Springfield, Ill.: C. C. Thomas, 1932. Pp. xii + 165. \$5.00.—The nature and clinical significance of the sign of Babinski and other pathological reflexes of the lower extremities in higher primates were investigated, and the findings indicated four well-marked stages in the evolution of cortical control over the lower spinal centers. Criteria for the determination of the degree of dominance were: (1) the rate of recovery of voluntary power following a lesion of the motor area, (2) the extent of the depression of spinal reflexes produced by such a lesion, and (2) the occurrence and degree of persistence of pathological reflexes such as the sign of Babinski. 64 figures, including many drawings by Frances Woodhall, are included in the text. There is an appendix in which Fulton discusses the technical problems involved in the use of monkeys and apes for experimental studies on the nervous system, viz., anesthesia, surgical technique, electrosurgical methods, surgical after-care. An extensive bibliography is given.—E. H. Kemp (Clark).

3281. Harlow, H. F., & Stagner, R. *Effect of*

complete striate muscle paralysis upon the learning process. *J. Exper. Psychol.*, 1933, 16, 283-294.—Under complete skeletal muscle paralysis (obtained by the use of curare) animals failed to learn a simple adaptive reaction in thirty repetitions, although control animals learned in less than three. Experimental extinction of a previously acquired adaptive reaction was not possible under curare. However, conditioned pupillary dilatation was developed and extinguished under curare. During the condition it was impossible to demonstrate either latent learning or association of new stimuli to previously conditioned responses.—E. H. Kemp (Clark).

3282. Hasegawa, T. *Die Veränderung der labyrinthären Reflexe bei zentrifugierten Meerschweinchen.* (Alteration of the labyrinthine reflexes in centrifuged guinea pigs.) *Pflügers Arch. f. d. ges. Physiol.*, 1931, 229, 205-225.—(*Biol. Abst.* VII: 852).

3283. Heape, W. *Emigration, migration and nomadism.* Cambridge: Heffer, 1931. Pp. xii + 369. 12/6.—A posthumous work by an English zoologist. The method is anecdotal, and the thesis is that the phenomena under discussion are controlled nutritionally and hormonally. Examples are drawn from most of the phyla from the arthropods upward.—R. R. Willoughby (Clark).

3284. Hoagland, H. *Specific nerve impulses from gustatory and tactile receptors in catfish.* *J. Gen. Physiol.*, 1933, 16, 685-693.—Receptors in the lips and barbels of the catfish are very sensitive to mechanical stimulation, giving A-type impulses. This great sensitivity of barbels and lips to currents of water may serve as a basis for observed rheotropism. Acetic acid, NaCl and meat juice when applied to the barbels and lips set up very small impulses in the facial nerve. It is suggested that the specificity of impulses for the two sense modalities may be correlated with the large size of the cells of origin of the axons in the Gasserian ganglion supplying tactile receptors and the small size of the cells of origin in the geniculate ganglion supplying axons to the taste buds.—C. H. Graham (Clark).

3285. Klüver, H. *Behavior mechanisms in monkeys.* Chicago: Univ. Chicago Press, 1933. Pp. xvii + 387.—The purpose of this study was (1) to develop a number of methods and techniques for analyzing the behavior of sub-human primates, particularly that of monkeys; (2) to gain some insight into the mechanisms involved in various forms of behavior. The forms of behavior studied were selected chiefly because of their possible significance for neurophysiology. Most of the subjects used were Old World and New World monkeys (macaques, *Cebus* monkeys, spider monkeys, squirrel monkeys). It was found that the most diverse aspects of behavior could be studied by the use of the "pulling-in technique" and its various modifications, such as the pulling-to-stop technique and the pulling-in technique with movable stimulus boxes, and that for the study of certain problems the method of presenting so-called "strata stimuli" was definitely superior to the method of presenting stimulus pairs. In most of the experi-

ments reported the author is concerned with an analysis of certain reactions to weight relata, auditory relata, visual relata (area, figure-ground, brightness, color, intermittence), and to sudden changes (visual changes, changes in weight). In these experiments the "method of equivalent stimuli" is systematically employed. A differential response to a certain set of stimuli was set up and, following this, groups of "equivalent" and "non-equivalent" stimuli were determined. The data on objective equivalence and non-equivalence were utilized then to throw light on functional equivalence, more particularly, on the nature of those properties which make heterogeneous stimulus situations "similar" or "identifiable." In another group of experiments the author presents data on visual acuity, tactual acuity, anisotropy, handedness, strata functions, use of tools, and emotion. Forms of tool use about as complex as those observed in chimpanzees were found to occur in *Cebus* monkeys. In the discussion of results the following topics are considered: (1) methods and techniques; (2) reactions to strata stimuli; (3) "relative" and "absolute" reactions; (4) abstraction; (5) "objective" and "phenomenal" properties; (6) the problem of "approximate constancy" in perception; (7) "generalization" and "differentiation"; (8) the problem of the "field" and related problems; (9) the problem of "intelligence" and related problems; (10) "sensory" and "motor" factors; (11) bearing of results on different fields of research. The bibliography contains 309 titles.—C. W. Darrow (Behavior Research Fund, Chicago).

3286. Kuroda, R. Effect of light and temperature on the spontaneous activity of tortoises in hibernation. *Acta Psychol. Keijo*, 1933, 2, 1-14.—This study deals with light and temperature as factors which are assumed to have some functional relation with the phenomenon of hibernation in the tortoise *Clemmys japonica*. Sensitivity to changes in temperature as well as negative phototactic orientation were found to appear conspicuously with the commencement of hibernation. A certain degree of velocity of change in temperature is also necessary in order to give rise to movements in these animals, inasmuch as they readily adapt themselves to the temperature of a surrounding medium. The author concludes that the arousal of negative phototactic orientation and of thermal sensitiveness has a biological meaning in so far as it coincides with the organism's behavior to seek an appropriate winter retreat.—H. W. Karn (Clark).

3287. Kuroda, R. Preliminary studies on the gustatory response in fishes. *Acta Psychol. Keijo*, 1932, 1, 157-161.—The aim of the author in publishing this study is to introduce a fairly satisfactory method of experimentation, capable of presenting an exact amount of solution at a given instant which is marked along the signal line together with the curves of respiratory gill movements. The fishes used were *Ophioccephalus argus* Cantor. Modifications of gill movements indicate discrimination of salt, sweet, sour, and bitter.—E. H. Kemp (Clark).

3288. Lashley, K. S., MacDonald, W. T., & Peters, H. N. Studies of cerebral function in learning. X. The effect of dilatation of the ventricles upon maze learning. *Amer. J. Physiol.*, 1933, 104, 51-61.—"The effects of dilatation of the lateral and third ventricles of the brain upon the rat's ability to learn the maze have been tested. Artificial enlargement of the ventricles to as much as 60 times their normal volume by injection of oil is followed by only a slight retardation in learning, which is scarcely greater than would be expected from the damage to the cortex by the injecting needle. The records of 22 animals with spontaneous hydrocephalus are not significantly different from those of others having equal amounts of cortical destruction and no hydrocephalus. The evidence rules out trophic disturbances arising from mechanical distortion of tissue or increased intracranial pressure as a factor in producing correlation between extent of cerebral destruction and efficiency in learning."—C. Landis (N. Y. Psychiatric Institute).

3289. Light, V. E. Photoreceptors in *Mya arenaria* L. *Proc. Pennsylvania Acad. Sci.*, 1929, 3, 106-108.—(*Biol. Abst.* VI: 24947).

3290. Mast, S. O. Localized stimulation, transmission of impulses, and the nature of response in *Amoeba*. *Physiol. Zool.*, 1932, 5, 1-15.—Localized increase in illumination of various parts of an amoeba produces the following: hyaline cap, no effect; plasmagel sheet, cessation in streaming at the tip and formation of lateral pseudopods near the tip; anterior end to a point some little distance back of the plasmagel sheet, cessation in streaming throughout the entire organism; one side of the plasmagel sheet, deflection in the direction of streaming toward the opposite side; any portion of the posterior part of the body up to a point a little distance back of the plasmagel sheet, rate of streaming increases. Increase in the illumination of one pseudopod in multipodal specimens causes cessation in streaming in that pseudopod, but not in others. Light causes gelation of the plasmasol adjoining the plasmagel. This effect of light is not transmitted to other regions of the organism. There are no impulses produced. Phototactic stimulation consists in differential localized increase in the elastic strength of the plasmagel, and response to light is due to localized contraction of the plasmagel owing to this increase in elastic strength. The gelating effect of light is not transmitted, but the effect of localized gelation and the consequent contraction is transmitted. It causes expansion in all regions of the plasmagel in which the elastic strength is lower than that in the region stimulated. An amoeba is a unified, coordinated system.—(*Biol. Abst.* VII: 827).

3291. Pearson, J. F. W. Changes in pigmentation exhibited by the fresh-water catfish, *Ameiurus melas*, in response to differences in illumination. *Ecology*, 1930, 11, 703-712.—(*Biol. Abst.* VII: 3155).

3292. Polyakov, K. L. K fiziologii obonyatelnogo i slukhovogo analizatorov u cherepakhi (*Emys orbicularis*). (Physiology of olfactory and auditory analyzers in the tortoise *Emys orbicularis*.) *Russkii*

fiziol. zh., 1930, 13, 161-178.—(German summary.) (*Biol. Abst.* VI: 18603).

3293. Raignier, A. Hoe vinden de mieren den weg? (How do ants find their way?) *Natuurhist. Maandbl.*, 1927, 16, 120-122; 139-141; 1928, 17, 2-5. And: Het orientatievermogen der mieren. (Power of orientation of ants.) *Natura*, 1928, 12, 230-244.—A critical and synthetical study of the orientation of ants according to the most recent experiments. The factors of orientation which come into play when the ant returns to its nest are different in the case of ants psychically more or less developed; they are also different when the journey is in a fairly straight line to the immediate neighborhood of the nest, or is a concentric search for the entrance itself. Among the higher ants (*Formica*, etc.), a confused sight of greater objects and of colors is dominant. Among the lower ants (*Myrmica*, *Lasius*, etc.), what dominates is the vague perception of a distant luminous landmark, only in so far as it is a source of light localized in a certain number of facets of their composite eyes (the "compass-eye" of Santschi), together with the possibility of tactile, olfactory or even auditory orientation, for finding the entrance to the nest. When these ants of lower species move along marked paths, they are guided principally by the topochemical sense (smell upon touching an object) supplemented by the compass-eye. There is no question of a special sense, or of any other mysterious faculty, but simply of the action, more or less intricate according to the circumstances, of ordinary sensitive perceptions, particularly of sight and smell coupled with touch.—(*Biol. Abst.* VII: 831).

3294. Richter, C. P. The grasping reflex in the new-born monkey. *Arch. Neur. & Psychiat.*, 1931, 26, 784-790.—(*Biol. Abst.* VI: 22040).

3295. Riviére, B. B. The "homing faculty" in pigeons. *Verhandl. 6 Internat. Ornith.-Kongress, Kopenhagen*, 1926, 535-555.—The author reports upon several experimental tests in homing. Racing pigeons normally travel at varying heights up to but not beyond 3000 ft. At this altitude they would have a possible range of vision of 67 miles. The places, the distances, and the directions from their home loft at which the racing pigeons were liberated, and the time spent on the homeward journey, were recorded. In one case untrained birds made better time than trained birds. The author concludes that trained racing pigeons undoubtedly possess a "sense of direction" which enables them when liberated in a strange country to take and maintain the geographical direction in which they have been accustomed to flying. It is arguable, but not probable, that this is due to a knowledge of the position of the sun.—(*Biol. Abst.* VII: 832).

3296. Sarria, E. G. Sind wir berechtigt vom Wortverständnis des Hundes zu sprechen? (Are we justified in speaking of understanding of words in dogs?) *Beih. z. Zsch. f. angew. Psychol.*, 1931, No. 62. Pp. 139.—The author assumes at the beginning of the study that an understanding of words requires mental sensitivity, will and attention,

memory, ideation, association and intelligence, all of which make possible conceptions. He sets about showing that the dog gives evidence of these processes. Three animals are observed in a large variety of situations of an informal kind. It is concluded that in understanding words the dog is dependent neither on the cadence of the sound, on lip movements, nor on sensory cues other than the actual word sound, though such cues all speed up the learning process when present. Further, it is stated that will is present in the same sense in which it is found in man; i.e. as the ability to inhibit action. Attention is present and is dependent on intensity, novelty of stimuli, movement, and changes in the organism from day to day. Memory is demonstrated. The dog also has ideas, which play an important role. This is indicated by the evidence of dreams and of actions carried out at considerable distances (120 meters) from the place at which instructions were given. The dog forms not only mechanical unconscious associations, but, like man, experiences conscious learning. He is shown to have intelligence as defined by Stern. He shows evidence of various degrees of conceptualization. Numerous photographs of the animals are reproduced.—H. Peak (Yale).

3297. Sawyer, M. E. M., Schlossberg, T., & Bright, E. M. Studies of homeostasis in normal and sympathectomized animals. II. The effect of anoxemia. *Amer. J. Physiol.*, 1933, 104, 184-189.—(1) The ability of normal and sympathectomized cats to resist low oxygen tensions was examined. (2) Normal cats which remained quiet throughout the experiment withstood oxygen tensions of 6 to 8% without collapse for at least an hour. (3) If a normal animal became excited and struggled during the experiment, its ability to withstand oxygen deficiency was remarkably lessened. In such cases fainting occurred in a short time. (4) Sympathectomized animals, as a rule undisturbed by the reduced oxygen tension, were unable to resist anoxemia as were the normal non-excited cats. Fainting occurred in all these animals within 15 to 37 minutes after exposure to low oxygen mixtures.—C. Landis (N. Y. Psychiatric Institute).

3298. Scharrer, E. Experiments on the function of the lateral line organs in the larvae of *Amblystoma punctatum*. *J. Exper. Zool.*, 1932, 61, 109-113.—Larvae react with a snapping reflex to minute streams of water directed toward the side of the head. If the Anlagen of the lateral-line organs are removed on one side of the head in early stages and the eyes are also extirpated, they react only if the stimulus is applied to the unoperated side. It is also shown that in addition to sight and smell the lateral-line organs may play an important rôle in obtaining food.—(*Biol. Abst.* VII: 834).

3299. Stetter, H. Untersuchungen über den Gehörsinn der Fische, besonders von *Phoxinus phoxinus* L. und *Ameiurus nebulosus* Raf. (Investigations on the auditory sense of fishes, especially of *Phoxinus phoxinus* L. and *Ameiurus nebulosus* Raf.) *Zsch. f. vergl. Physiol.*, 1929, 9, 339-477.—(*Biol. Abst.* VI: 18605).

3300. Van Dyk, J. A. The alterations in tetanic contraction. Myograms of the pigeon's wing musculature, brought about by stimulation of the sympathetic cervical cord. *Arch. néerl. physiol.*, 1931, 14, 33-42.—(*Biol. Abst.* VI: 22064).

3301. Verlaine, L. L'instinct et l'intelligence chez les Orthoptères. L'autotomie psychique ou volontaire chez les Phasmides. (Instinct and intelligence in Orthoptera. Psychological or voluntary autotomy in Phasmidae.) *Mém. Soc. sci. de Liège*, 1931, 16, Pp. 47.—The author does not agree with the distinctions made by Piéron (1909) between reflex and voluntary autotomy, but believes that autotomy is always voluntary, or rather psychological, that is to say, integrated with associations of perceptions and reactions. He bases his theory on the results from a great number of experiments performed on young phasmids (*Dixippus morosus*), taken as soon after hatching as possible. They were briskly shifted about on a table, a condition particularly favorable to autotomy. Verlaine points out other conditions which favor or inhibit autotomy (the nature and localization of the stimuli, the physical, physiological, and psychological conditions in which the insect finds itself, etc.).—*R. Nihard* (Liège).

3302. Verlaine, L. L'instinct et l'intelligence chez les Hyménoptères. XIII. Le tonneau des Danaïdes. XIV. L'abstraction. (Instinct and intelligence in Hymenoptera. XIII. The Danaids' sieve. XIV. Abstraction.) *Bull. et ann. Soc. entom. de Belgique*, 1931, 71, 123-130; 227-238.—The author seeks to prove that the behavior of Hymenoptera is not instinctive or invariable, but intelligent. In his experiments on honey-bees, he shows that, contrary to previous assertions, the bees do not persist in trying to fill cells with honey, the bottoms of which have been removed (the sieve of the Danaids), but immediately repair the damage. He performed a great number of experiments with bees, showing that they can recognize pieces of gray paper of a triangular form and can distinguish these forms from others of different shape, irrespective of the form of the triangle, the orientation of angles, or the position of these forms with reference to the other ones. The author believes that the bees generalized without difficulty the essential characteristics of the original triangle, upon which they had found sugar. This is the procedure which Verlaine terms abstraction.—*R. Nihard* (Liège).

3303. Wang, G. H. Note on direct stimulation of the pupillary dilator muscle fibers in the iris of the cat. *Chinese J. Physiol.*, 1932, 6, 341-344.—Working on ten preparations of the cat, the author finds that stimulation of either the cornea or the iris causes contraction of the fibers of the pupillary dilator muscle in the isolated eye. This effect persists after the iris has been deprived of its sympathetic innervation by previous removal of a part of the cervical sympathetic chain.—*C.-F. Wu* (Nat. Res. Instit. Psychol., China).

3304. Weimer, B. R. Reversal of polarity in hydra by means of KCN. *Proc. West Virginia Acad. Sci.*, 1928, 2, 77-79.—(*Biol. Abst.* VII: 838).

3305. Willrich, U. Beiträge zur Kenntnis der Lichtkompassbewegung und des Farbensinnes der Insekten. (Contributions to the knowledge of the light control of movement and of the color sense in insects.) *Zool. Jahrb., Abt. Allg. Zool. u. Physiol. Tiere*, 1931, 49, 157-204.—Some insects, when exposed to light, go either directly towards or from the source; others do not, but some of the latter, if they once take a course at a given angle with the rays, tend to retain it. This type of orientation has been designated *Lichtkompassbewegung*. The author investigated this phenomenon in a considerable number of beetles (*Coccinella septempunctata*, *Elaphrus riparius*, *Platinus dorsalis*, *Chrysomela fastuosa*, *Oedemera virescens*, *Geotrupes silvaticus*, *Hapalus*, spec., *Cassida*, *Dolopius marginatus*, *Otiorhynchus*, *Cantharis*, *Paederus*, *Lathrobium*, *Agonum*, *Stenus*, *Philonthus*, *Bembidion lampros*, *Philydros*, *Silpha*, *Carabus auratus*) and the relation between it, the physiological state of the organism, the intensity of the illumination, the length of time between the tests, and the wave length. The following conclusions were reached, applying in general to all the forms studied: *Lichtkompassbewegung* occurs mainly in insects which take a fairly direct course in the absence of external stimulation; it has biological significance. The angle between the direction of movement and the direction of rays is not fixed for an individual, but after a definite relation between the direction of movement and ray direction has been established, it is difficult to force the organism to change this. In specimens that are well fed the phenomenon is very indefinite. The relation between the direction of movement and ray direction is not dependent upon the intensity of the light, unless the change is very great and very abrupt. It is independent of the wave lengths; that is, it occurs in red, green, blue, etc., as well as in white light, but if it is established in light of a given wave length, it is not retained if the wave length is changed. For example, if it is established in red, it is not maintained if the light is changed to blue or green. The author maintains that this proves that the beetles studied have color vision, and that she has discovered a method which makes it possible to investigate color vision in many organisms which do not respond in such a way that other methods can readily be used. After the relation between direction of rays and direction of movement is established, it is retained in the absence of further experience for at least 24 hours. That is, if the organism is kept in darkness for 24 hours after it has once assumed a direction of movement in relation to ray direction and then exposed again, it will at once assume the same direction of movement. This is referred to as *Lichtungsgedächtnis*. *Lichtkompassbewegung* is not dependent upon symmetry of the action of the locomotor appendages on opposite sides. It occurs normally in specimens in which some of the legs on one side have been amputated.—(*Biol. Abst.* VII: 839).

[See also abstracts 3190, 3201, 3244, 3254, 3260, 3262, 3263, 3265.]

EVOLUTION AND HEREDITY

3306. Brenk, H. Über den Grad der Inzucht in einem innerschweizerischen Gebirgsdorf. (The degree of inbreeding in a mountain village in inner Switzerland.) Zürich: Orell Füssli, 1931. Pp. 39. Fr. 5.35.—R. R. Willoughby (Clark).

3307. Dawidenkow, S., & Galatschian, A. Über die Eheberatung bei genuiner Epilepsie. Theoretisches und Praktisches. (On marriage advice in genuine epilepsy. Theoretical and practical.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 51-66.—(Courtesy *Bibliographia Eugenica*).

3308. Day, E. J. The development of language in twins. II. The development of twins: their resemblances and differences. *Child Development*, 1932, 3, 298-316.—For each of 160 twins, 20 pairs at each age level, 2, 3, 4, and 5 years, a large body of information was secured with regard to developmental history, physical and psychological characteristics, and particularly language development. (See VII: 315.) Results from these data indicate that "twins are below average in intelligence test performance" (average IQ 94.3). Fraternal twins are found to be below identical twins in this respect (average IQ 92.8). These findings agree with the results of other studies of twins. "The language retardation of the twins in terms of 'language quotient' is very much greater than is their retardation in general intelligence in terms of IQ. Identical twins were found to resemble one another much more closely than fraternal twins" in both language development and general intelligence. "21% of the group show a tendency to be left-handed. This is similar to the findings of other studies of twins." 22 references.—F. D. McTeer (Detroit City College).

3309. Finch, F. H. Sibling resemblance and its relation to age interval. *Science*, 1933, 77, 373-374.—The author has collected data from intelligence tests administered to two or more members of a family in an attempt to reveal any relationship existing between age interval and degree of resemblance of siblings in mental capacity. The results are based on the records of 1,012 pairs of native-born white siblings, representing 614 families and having age differences ranging between 1 and 11 years. Three groups, including superior, average and inferior ability, respectively, were obtained by drawing upon schools enrolling children from widely different socioeconomic strata. In all cases the two members of a pair were tested with the same tests and under similar conditions. The chief method of analysis used to discover any possible relationship existing between age interval and difference in intelligence was that of the product-moment correlation. For each group of data this relationship was computed by entering the difference of a pair in IQ on the x axis, and their difference in age on the y axis. The obtained correlations indicate no tendency for children within a family, far apart in age, to resemble each other less than children born near together.—H. W. Karn (Clark).

3310. Jones, H. E., & Wilson, P. T. Reputation differences in like-sex twins. *J. Exper. Educ.*, 1933,

1, 86-91.—In this study 50 pairs of like-sex twins (group A) were chosen in such a manner as to match 25 pairs of identicals with 25 pairs of fraternal by the criteria of age, sex and social and educational status. By means of standardized interviews, reports were obtained from the mothers concerning intra-pair differences in 18 reputation traits. Among the identicals the percentage of pairs recorded as "different" ranges from 8 to 75 in the various traits, with an average frequency of 43.2%. Among like-sex fraternal, the percentages range from 16 to 83, with an average of 55.5%. Certain individual traits show a reliably greater frequency of difference among the fraternal, while in certain other traits this tendency is reduced and sometimes reversed. Although the higher percentages (indicating more frequent differences) occur among fraternal, the rank order of these differences is similar in the two types of twins. A repetition of the statistical analysis on a more inclusive sample (group B) of 40 pairs of fraternal and 40 pairs of identicals revealed results similar to those found for group A. The chief results to be emphasized are that individual pairs of monozygotic twins are publicly considered to be more similar than dizygotic pairs, and that this greater estimated similarity extends to a wide range of traits and applies very unequally to different traits. "We need not be greatly concerned here with the causes nor with the validity of these reputational differences; our point of interest is in their effect, and we conclude that this effect is to contribute an environmental differentiating factor which is greater for fraternal than for identical twins."—H. W. Karn (Clark).

3311. Kehl, R. Medidas para estimular la fecundidad de los tipos superiores (bien dotados). (Means for stimulating the fecundity of superior, i.e., well endowed, types.) *Gac. méd. Española*.—R. R. Willoughby (Clark).

3312. Kloos, G. Das Genie-Problem im Lichte moderner Forschung. (The problem of genius in the light of modern research.) *Eug., Erbl., Erbpfl.*, 1932, 2, 115-118.—The second part deals with genius and "insanity."—(Courtesy *Bibliographia Eugenica*).

3313. Köhler, —. Die Fortschritte der Vererbungslehre. (Developments in the study of heredity.) *Indus. Psychotechn.*, 1933, 10, 26-27.—With the purpose of introducing courses in heredity and eugenics, the Central Institute of Education sponsored a convention for discussion of the modern findings in those fields. Papers were given by various authorities on the following subjects: modern developments of Mendelianism, human inheritance, inheritance and twinning, national and international eugenic movements, eugenics and the family, inheritance and feeble-mindedness, tuberculosis, criminology, etc. The members of the convention stressed the need for sterilization of persons with a heredity tainted by insanity, criminology or other diseases, as well as the feeble-minded.—C. Burri (Chicago).

3314. Legras, A. M. Psychose en criminaliteit bij tweelingen. (Psychoses and criminality in twins.)

Utrecht: Kemink & Sohn, 1932. Pp. 105.—(Courtesy *Bibliographia Eugenica*).

3315. Löwenstein, O. *Psychische Anlage und Umwelt. Zwillingspsychologische Untersuchungen.* (Psychic Anlage and environment. Psychological study of twins.) *Zentbl. f. d. ges. Neur. u. Psychiat.*, 1932, 62, 227.—Significance of inheritance for certain mental characteristics such as attention, coordination, observation, practical intelligence.—(Courtesy *Bibliographia Eugenica*).

3316. "Student." *Evolution by selection.* *Eug. Rev.*, 1933, 24, 293-296.—Advances the conception "of species patiently accumulating a store of genes, of no value under existing conditions and for the most part neutralized by other genes of opposite sign. When, however, conditions change, unless too suddenly or drastically, the species finds in this store genes which give rise to just the variation which will enable it to adapt itself to the change. It follows that the change appears to have produced the variation which it has merely selected from among those potentially present. Thus we can reconcile the view . . . that the environment produces the required variation, with the older Darwinian selection of random variations, to which it appears at first sight to be diametrically opposed." The experiments of Winter on oil and protein content in maize are discussed in the light of this conception. Several hundred genes must be postulated to account for the changes reached in these experiments through selection.—*B. S. Burks* (California).

3317. Wiener, A. S. *Observations on the manner of clasping the hands and folding the arms.* *Amer. Natur.*, 1932, 66, 365-370.—Traits not hereditary, no correlation with sex, handedness or each other.—(Courtesy *Bibliographia Eugenica*).

[See also abstracts 3137, 3167, 3355, 3358, 3359, 3364, 3391, 3392, 3393, 3401, 3408, 3409, 3419, 3427, 3443.]

SPECIAL MENTAL CONDITIONS

3318. Bachler, K. *Alfred Kubin und die Flucht ins Traumreich.* (Alfred Kubin and his flight into the dream realm.) *Psychoanal. Bewegung*, 1933, 5, 53-65.—Kubin's childhood experiences are recalled to throw light upon his mature personality, which involved a projection of infantile experiences and ambivalence against the father. These were determinants of his flight into seclusion, and later into the dream-life. One sees in his literary and artistic productions a self-revelation, a search for the satisfaction of self-expression.—*A. B. Herrig* (Michigan Central State Teachers College).

3319. Bergler, E. *Zur Psychologie des Zynikers.* (A contribution to the psychology of the cynic.) *Psychoanal. Bewegung*, 1933, 5, 19-52.—The author attempts to define cynicism, tracing its connotation historically, especially from the Greek derivation. An analysis of cynicism is made, with a discovery of a self, critical of itself, expressing its self-criticism in criticism of others. Ambivalence and aggression

are characteristic of all cynicism. The article cites fourteen forms of cynicism, illustrating each and analyzing the circumstances under which it arises and commenting on the type of personality expressing it.—*A. B. Herrig* (Michigan Central State Teachers College).

3320. Cady, L. D. *Psychoanalysis and common sense.* *Med. J. & Rec.*, 1933, 137, 68-71.—"Good judgment, knowledge and experience in interpreting the emotional reactions of people, a benign curiosity, and patience" are more important in psychoanalyzing (= mental analysis) than the symbolic or figurative interpretation of symptoms and the multiplication of fantastic terminology.—*R. C. Givler* (Tufts).

3321. Caso, G. *Il carattere e le attitudini infantili.* (Character and infantile attitudes.) *Folia med.*, 1932, No. 6, 383-401.—*R. Calabresi* (Rome).

3322. Clark, L. P. *Narcissism as a factor in neuroses and psychoses.* *Med. J. & Rec.*, 1933, 137, 59-64.—"All the psychoses and a majority of the neuroses fall within the narcissistic group." Primary narcissism is characterized by aloofness and apparent self-sufficiency, secondary narcissism by social seeking to offset the hurts of reality, while the third variety, apparently yet more socialized, feels the constant need of appreciative approval. To proclaim the "right to be loved" is an indication of primary narcissistic motives, just as is the overvaluation of the loved object. Neuroses such as epilepsy and dipsomania are precipitated when the demand for satisfactions exceeds the supply or when the specific hope is utterly vain, and a similar cause is postulated for such functional psychoses as schizophrenia and manic-depressive insanity.—*R. C. Givler* (Tufts).

3323. Daniels, G. E. *Analysis of a case of alcoholism.* *Psychoanal. Quar.*, 1933, 2, 123-130.—Significant episodes occurring or related during analysis are discussed in this clinical communication. The death of the patient's mother surrogate resulted in increased alcoholism, and investigation proved it to be an oral regression to the state of infantile breast gratification. Homosexual activity, particularly fellatio and semen-swallowing in masturbation, confirmed the narcissistic as well as oral regressive trends. The analyst's attempts to decrease the liquor consumption resulted in an increase and irritability toward the analyst. Eventually resolution of this conflict was disclosed in a dream, with a subsequent dream disclosing the patient's steps toward an adult genital level.—*M. H. Erickson* (Worcester State Hospital).

3324. De Sanctis, S. *Costituzione e personalità.* (Constitution and personality.) *Rinascenza med.*, 1932, 9. Pp. 16.—The individual consists of a biopsychological unity formed by temperament, constitution, and personality. Constitution is defined by the author as covering the original morpho-physiological characteristics of the individual, while temperament covers the sensory and affective physiological characteristics. Temperament is intermediate between constitution and personality. In personality are to be

found united the individual psychological characteristics. Finally, character can be said to include temperament, the form of intelligence and fantasy, and the modality of the will. Constitution, contrary to the question of heredity, is dynamic: the constitutional components change and exhibit interferences during their development. The abnormal constitution does not necessarily depend upon health disorders. The author lays stress on the constitutional capillaroscopic characteristics. The analytic method should be used in the study of personality, which includes fantasy, affectivity, sexuality, productivity, etc. The author explains his usage of the following terms: stratification of personality, retrogradation and reduction of personality, and depersonalization.—*R. Calabresi* (Rome).

3325. **Ellis, H.** *Etudes de psychologie sexuelle.* (Studies in sexual psychology.) (Trans. by A. Van Gennep.) Paris: Mercure de France, 1932. Pp. 221. Volume X, the prevention of venereal disease; sexual morality. A study on sexual education in relation to venereal disease, prostitution and the marriage system, morality and marriage, etc. Pp. 221, Fr. 20. Volume XI, marriage. Discusses marriage, monogamy, and the history of marriage. Pp. 282. Fr. 20. Volume XII, the art of love; the science of procreation. Pp. 280. Fr. 20. Volume XIII, the mechanism of sexual deviations, narcissism. Pp. 240. Fr. 20.—*Math. H. Piéron* (Sorbonne).

3326. **Erickson, M. H.** Possible detrimental effects of experimental hypnosis. *J. Abn. & Soc. Psychol.*, 1932, 27, 321-327.—The literature offers little credible information concerning possible detrimental effects of experimental hypnosis, although it is replete with dogmatic and opinionated denunciations founded on outworn and untenable concepts of the phenomenon. Theoretical possibilities of detrimental effects are development of hypersuggestibility, alteration of personality, weakening of the subject's perceptual powers in regard to reality and unreality, and the development of unhealthy mental attitudes and escape mechanisms. The literature is barren of controlled experimental investigation of these problems. The author's own experience reveals no evidence of such harmful effects.—*C. H. Johnson* (Boston Psychopathic Hospital).

3327. **Feller, F. M.** Über die Bedeutung der Zahlen. (The meaning of numbers.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 33-39.—As a slogan for a brand of mineral water "Lostorfer seven times a week" was more successful than "Lostorfer once a day." This is due to the unconscious sexual meaning of the number 7. This meaning is related to the maximum number of performances of the sexual act per night. Other instances of this number are the 7 league boots of fairy tales and the 7 heavens of Dante. Other numbers with sex symbolism are 3, 10, 36 and 69.—*H. E. Burt* (Ohio State).

3328. **Frey, E.** Beitrag zur Frage der Behandlung und Heilbarkeit der Homosexualität. (Contribution to the problem of the treatment and prognosis of

homosexuality.) Zürich: Art. Inst. Orell Füssli, 1931. Pp. 28. Fr. 2.50.—(Not seen).

3329. **Garma, A.** Consideraciones psicoanalíticas sobre la vida sexual. (Psychoanalytic considerations concerning the sexual life.) *Arch. de neurobiol.*, 1932, 12, 543-566.—Statement of the standard Freudian position.—*R. R. Willoughby* (Clark).

3330. **Granich, L.** A systematic translation of psychoanalytic concepts. *J. Abn. & Soc. Psychol.*, 1932, 27, 302-320.—Believing that many of the terms used in psychoanalytic literature are too indefinite in meaning, the author discusses in this first of a series of articles such terminology as the unconscious, complex, case of abnormality, inferiority complex, neurotic symptom, etc. In later papers he plans to discuss such relevant topics as: repression, conflict, sublimation, the pre-conscious, inhibition, dreaming, etc.—*C. H. Johnson* (Boston Psychopathic Hospital).

3331. **Heiler, C.** Der Wunderknabe Lind aus Mittelfischbach 1852. Ein Fall von "Massensuggestion." (The miracle of the Lind boy in Mittelfischbach in 1852; a case of group suggestion.) *Arch. f. Psychiat. u. Nervenkr.*, 1931, 93, 28-33.—The case is that of a boy of 12 who suffered an epileptiform attack following a cathartic administered by the physician. The father consulted a healer, who advised him not to place any faith in Bohemians. From that moment the boy took on a sort of secondary personality; each day he stretched himself on a bed in a special position and with outstretched arms began to preach. The bed was placed before a window, and thousands of people from the surrounding country came to see the "miracle." Since this arrangement brought money to the parents and townspeople, nothing was done about it until an official of a neighboring town had the boy placed in a hospital for observation; all the miraculous phenomena disappeared on the same day.—*M. G. Willoughby* (Clark).

3332. **Herbertz, R.** Ueber die sogenannte "fausse reconnaissance." (Concerning the so-called false recognition.) *Psychol. Rundschau*, 1933, 4, 251-257.—The frequent experience of a familiarity feeling with reference to an experience has been explained by many psychologists, among them Lindworsky. The author criticizes his analysis and calls attention to the much more rational analysis given by Bergson. The phenomenon is more common with persons of low psychic stability.—*A. B. Herrig* (Michigan Central State Teachers College).

3333. **Hermesmeier, F.** Experimentell-psychologische Untersuchungen zur Charakterforschung. (Psychological experimentation on character.) *Beih. z. Zsch. f. angew. Psychol.*, 1931, 55, 1-230.—This monograph presents the results of an investigation of ethical concepts and feelings in 20 boys, 13 and 14 years of age. Ratings made by the experimenter after administering a large number of test situations show correspondence with estimates of parents and teachers in 87% of the cases. The first series of procedures is intended to reveal intelligence and the ethical concepts of the subject. Tests of memory, including digit repetition and paired associates and Ebbinghaus

completion tests, were used. Four methods were employed for examining ethical concepts: (1) the definition of terms involving ethical concepts, (2) the subsumption of anecdotes under certain concepts, (3) the differentiation of paired examples of ethical qualities, (4) a combination of these methods. A second series was devised to investigate the ethical sense. Eight methods are enumerated here: (1) The method of *exempla ficta*, in which questions were asked the subject regarding his interpretation of a fictitious narrative. (2) The method of ethical motivation, in which the questions asked concerned the reason for the rightness or wrongness of certain acts. (3) The Fernald method. (4) Evaluation of ethical qualities and acts. Subjects were required to give example of good or bad acts, etc. (5) Questions about the ideal person, act, or state of life, and the opposite. (6) Questions concerning the future calling of the subject, the father's occupation and the ideal. (7) The method of direct examination of the feelings. This involved placing the subject in a real situation in which his actual reactions could be observed. (8) Anamnesis, a history of the individual's reactions in situations involving ethical questions.—*H. Peak* (Yale).

3334. **Hesnard, A.** *Homosexualité des endocrines.* (Homosexuality of the endocrines.) *Evolution psychiat.*, 1933, 3, 33-51.—If homosexualizing pathology is subordinated, like all sexual phenomena, to certain very general biological conditions of harmonic nature, it releases many more permanent nervous inhibitions which make the invert incapable of heterosexuality, rather than an instinctive hermaphrodite. The author emphasizes the rôle of psychology, which could be nothing but a physiology of the mind, that is, an integral physiology of the living being, principally occupied with the analysis of its behavior.—*Math. H. Piéron* (Sorbonne).

3335. **Jenness, A.** *Facilitation of response to suggestion by response to previous suggestion of a different type.* *J. Exper. Psychol.*, 1933, 16, 55-82.—Eight subjects were selected because they were hypnotizable. Postural changes in response to suggestion, received during the waking state, were compared with the same type of movement in the trance state. Suggestions regarding sleep were given by means of the Estabrook hypnotic-technique phonographic record. The suggestions regarding movement were standardized for this experiment by the preparation of an appropriate record. The feasibility of using phonograph records for the purpose of standardization of procedure is pointed out. Response to suggestions regarding the forward movement of the arm took place more rapidly in the trance than in the waking state. Eye closure incident to going into the trance took place more rapidly after response to suggestions regarding arm movement than it did when such response preceded the suggestions for sleep. There was evidence of a cumulative effect in successive suggestions regarding arm movement. Habituation is evident in the responses on following days in regard to both eye closure and arm movement.

Practice curves show negative acceleration. There is a positive relationship between the length of time necessary for eye closure and that necessary for arm movement.—*S. Renshaw* (Ohio State).

3336. **Johnson, H. M., & Weigand, G. E.** *The so-called depth of sleep.* *Proc. Pennsylvania Acad. Sci.*, 1929, 3, 38-41.—(*Biol. Abst.* VI: 22031).

3337. **Kalter, S.** [Concerning the medical treatment of bad dreams.] *Munch. med. Woch.*, 1932, 79, 1361.—The author obtained positive results from treating medically certain nerve disorders, which are accompanied by bad dreams, in such a way as to promote the elimination of the toxic products of metabolism. More detailed experiments are needed to determine the influence of endocrine remedies on exaggerated dream life, though a certain amount of this influence may be determined under present conditions.—*A. B. Hunter* (Clark).

3338. **Kankeleit, O.** *Schuldgefühl und Neurose.* (Feelings of guilt and neurosis.) *Psychol. u. Med.*, 1932, 4, 293-301.—In the concluding article of the series Kankeleit shows the relationship between sexuality, feelings of guilt and the tendency toward self-punishment. Kankeleit gives a case study of a merchant who developed asthmatic attacks as result of feelings of guilt due to onanism and imagined infidelity. Kankeleit also discusses Herbertz' work on the guilt feelings of criminals.—*D. S. Oberlin* (Bryn Mawr).

3339. **London, L. S.** *Analysis of a homosexual neurosis.* *Urol. & Cutan. Rev.*, 1933, 37, 93-97.—*R. R. Willoughby* (Clark).

3340. **Martin, L., & De Gruy, C.** *Sweeping the cobwebs.* New York: Macmillan, 1933. Pp. viii + 181. \$1.50.—Many elderly people come to the authors' clinics. They are first studied by means of a life history and an intelligence test, after which they are asked to make a precise statement of their daily program and money budget. They also formulate their life goal. The method of treatment consists in treating the specific functions of the elderly person's organism, by means of reliance on medical examinations and recommendations, physical exercise, adjustment to the individual tempo, rest periods, controlling and expression of the emotions, uprooting complexes, strengthening attention, observation and memory. They are encouraged to forget irrelevant memories. The unconscious, imaginations and reveries are discussed, and the old person is encouraged to reason rather than rationalize. The use of slogans is part of the therapy. There is a discussion of social adjustment and the use of recreation and amusement for the aged. The method of treatment is illustrated by a number of case histories pertaining to the adjustment of the elderly person in industry, and a chapter is appended to point out the attitude that should be taken by social workers toward elderly persons.—*L. S. Selling* (Institute for Juvenile Research, Chicago).

3341. **Melinand, C.** *L'homme et ses désirs.* (Man and his desires.) Paris: Nathan, 1933. Pp.

205. Fr. 15.—Desire is essentially a dual phenomenon, having an inner consenting side which is, in general, the reaction of the being to the known or imagined pleasure, an inclination toward a new experience of this pleasure; and an external side, observable from without, which is a beginning movement. Desire is, then, on one side the conscious imagination of pleasure, and on the other side the commencement of a bodily act. The author discusses the desires (desire for power, for happiness, pride, for praise, emulation, play, sympathy, etc.). These are the desires and tendencies which constitute human nature. However, the predominance of one or more desires in an individual defines his character.—*Math. H. Piéron* (Sorbonne).

3342. Niederhoffer, E. v. *Zur Kritik der Individualpsychologie.* (A critique of individual psychology.) *Allg. Zsch. f. Psychiat.*, 1931, 4, 685-708.—The critique is concerned with the theoretical aspects of the doctrine. The author believes that it does not take sufficient account of the rational part of the mind, that it misunderstands and treats as pathological the irrational part, and that it tends to obliterate personality differences. It seems to be a psychology of the common man based upon hatred and envy of the superior solitary individual whose feelings he does not understand. The author regrets the increasing place of this type of common man, whose rationalism and mechanism are a consequence of the increasing domination of the machine; it seems probable that the end of this process will be the complete extinction of the more intangible aspects of the human mind. In spite of the inadequacies of the doctrine, the author grants it some utility in certain cases of neuroses, where good therapeutic results have been obtained by its use. In particular, the methods of individual psychology have been successful in adapting psychopaths to social life.—*M. G. Willoughby* (Clark).

3343. Pözl, O., Economo, C., Pick, E., Molitor, H., & Strasser, A. *Der Schlaf. Mitteilungen und Stellungnahme zum derzeitigen Stande des Schlafproblems.* (Sleep. Communications and viewpoints on the present status of the sleep problem.) Munich: Lehmann, 1929. Pp. 107. RM. 5.50.—(*Biol. Abst.* VI: 18648).

3344. Price, H. *An account of some further experiments with Rudi Schneider.* *Bull. IV, Nat. Lab. Psych. Res.*, 1933, 1-196.—The author earlier published a book and articles endorsing the claims of the noted young Austrian physical medium to the production of genuine "levitation," "materialization," etc. The present Bulletin reports 27 experiments in which like phenomena appeared. But toward the end a photograph, which is published, disclosed what the "controllers" apparently were unaware of, that Rudi drew his right hand from control and apparently created a "phenomenon" with it. The discovery produced a profound impression upon Price, who suspects escape of control on other occasions and ends with the remark, "I am afraid that we shall have to start the investigation all over again." The author's discovery by means of the

photograph induces him to publish, after eight years of retention, a photograph proving that Rudi's equally famous brother, Willy, now retired, also committed fraud. It also releases his opinion that the published results of experiments with Rudi at the Institut Métapsychique of Paris, in 1930-31, are vitiated by grave uncertainties regarding the security of control. The Bulletin has considerable psychological interest, as it seems to reveal that very intelligent persons may, under certain conditions—darkness, distraction by noise, weariness, etc.—lose their grip upon a hand or wrist without being aware of the fact.—*W. F. Prince* (Boston).

3345. Radó, S. *The psychoanalysis of pharmacothymia (drug addiction).* *Psychoanal. Quar.*, 1933, 2, 1-23.—Psychoanalytical aspects of the clinical picture of drug addiction are presented from the basis that the psychic impulse to use and not the toxic agent itself is the essential factor. The two effects, pain alleviation and pleasure generation, both narcissistic, and the "elating" and "depressant" results representing respectively flight from and return to reality are elaborated as to mechanisms and purpose. The final outcome is the pharmacothymic crisis, which culminates in withdrawal to a free period for recuperation of health for further addiction, or in suicide by over-dosage as a means of making permanent the euphoria, or in a psychosis to achieve masochistic pleasure on a narcissistic level.—*M. H. Erickson* (Worcester State Hospital).

3346. Raiga, E. *L'envie, son rôle social.* (The social rôle of envy.) Paris: Alcan, 1933. Pp. 260. Fr. 15.—The author places man's tendency to elevate himself above his peers upon the first plane; he seeks the genesis of envy in the reactions which accompany the defeat of ambition, and proposes a distinction between envy and jealousy, which latter appears only as the fear of a check or of the loss of possession. He also establishes an antinomy between envy and admiration, the solution of which lies, he says, in the difference between the aspirations of rivals in a struggle and the disinterestedness of strange observers of a contest. After having examined the manifestations of envy in different social classes, in the family and in politics, he attempts to discover what social reactions spring from envy.—*Math. H. Piéron* (Sorbonne).

3347. Ronce, R. *Essai sur la psychologie des tuberculeux pulmonaires.* (Essay upon the psychology of sufferers from pulmonary tuberculosis.) Thèse de méd. de Paris, 1932. Pp. 144.—It is difficult to affirm the existence of a psychology of sufferers from pulmonary tuberculosis, but it is possible to distinguish in all patients a certain number of psychological reactions which, although not strictly identical, develop along the same lines. There are various psychological episodes: first the phase of revelation, marked by a great physical and moral shock; then the phase when the patient is adjusting himself to his illness, showing instability, inquietude, weakening of the will power, and hyperesthesia of feeling. Then comes the terminal phase, marked by

relative euphoria. In the convalescent and in old patients, the difficulties of a return to normal life must be noticed. A common tie unites all the characteristics of these phases; there is a flagrant contradiction between a number of tendencies, for example the character of these patients is somewhat infantile, and is, in spite of everything, developed by the fact of the illness. A long bibliography terminates the study.—*Math. H. Piéron* (Sorbonne).

3348. Sahuqué, A. *Les dogmes sexuels*. (Sexual dogmas.) Paris: Alcan, 1933. Pp. 375. Fr. 30.—The book is in three parts: (1) sexuality and the sexual doctrine; (2) the genesis of this doctrine; (3) illustrations of sexual doctrine. No bibliography.—*Math. H. Piéron* (Sorbonne).

3349. Salzi, M. *L'oeuvre de Freud*. (The work of Freud.) *Rev. de psychol. appl.*, 1932, 2, 174-188.—A critical and historical discussion of the work of Freud, with case histories illustrating the points. Whatever may be the future development of psychoanalysis, Freud occupies the same position in relation to it that Pythagoras occupies to the science of mathematics.—*J. C. Spence* (Worcester, Mass.).

3350. Šeracký, F. *Psychologische Charakterologie*. *Ceská mysl*, 1932, 171-178.—In agreement with Klages and W. Stern, the author considers that the essential of character should be represented as a disposition capable of transformation, while temperament is the congenital form of our activity, which merely unfolds. Extrospection as a method of character study can succeed only if there is a basis of introspection. The best method is the empirical, aided by statistics. In this way, different types can be studied and verified as they present themselves in connection with vocation, sex or race, and during a definite period of time.—*M. E. Morse* (Catonsville, Md.).

3351. Stuchlik, J. *Die Tiefen der Seele*. (The depths of the soul.) *Samml. psychoanal. Aufsätze*, 1932, 43-56.—Material phenomena last for an appreciable time; psychic phenomena appear to exist only so long as I am conscious of them, and hence they seem to have no temporal components. In reality, however, this conscious existence is only a special form of an enduring existence; consciousness itself is only a transient, unessential and inconstant form of psychic life. The recognition of this fact is the premise for a correct treatment of mental diseases, and Freud is thus the founder of a causal psychotherapy.—*M. E. Morse* (Catonsville, Md.).

3352. Velikovsky, I. *Psychoanalytische Ahnungen in der Traumdeutungskunst der alten Hebräer nach dem Traktat Brachoth*. (Anticipation of psychoanalysis in the art of dream interpretation of the early Hebrews as seen in the tractate of Brachoth.) *Psychoanal. Bewegung*, 1933, 5, 66-69.—The author observes that in a folio of the Talmud dream interpretations, fore-runners of Freud, are to be found. That the interpretation of the dream rather than the dream itself is important was known, as were the ideas of wish-fulfilment, word-play, symbolism,

Oedipus-urge, and after-dream recalls.—*A. B. Herzig* (Michigan Central State Teachers College).

3353. Vruwink, J., & Popenoe, P. *Postoperative changes in the libido following sterilization*. *Amer. J. Obstet. & Gynecol.*, 1930, 19, 72-77.—(Biol. Abst. VII: 3140).

3354. Walsh, W. S. *Peace of mind and body*. New York: Dutton, 1933. Pp. 249. \$2.50.—*R. R. Willoughby* (Clark).

[See also abstracts 3173, 3204, 3210, 3270, 3281, 3380, 3397, 3436, 3453, 3458, 3580, 3588.]

NERVOUS AND MENTAL DISORDERS

3355. Bands, J. S., & Mieto, D. *Contribución casuística al estudio de las psicosis gemelares*. (Casuistical contribution to the study of the psychoses of twins.) *Arch. de neurobiol.*, 1932, 12, 403-426.—A pair of adolescent twins developed severe schizophrenic symptoms within a few days of each other. This and other evidence leads the author to stress the inherited organic factors as the more important in the appearance of mental disease.—*J. W. Nagge* (Chicago).

3356. Bellieu, R. *Paralysie générale et génie*. (General paralysis and genius.) *Thèse de méd. de Paris*, 1932. Pp. 63.—An expansive form of general paralysis may exist, with augmentation of intelligence and mental activity at the beginning. This expansive form would be due to toxins elaborated by the treponema, which serve as excitants to the neurones. The author discusses the cases of two celebrated men, Guy de Maupassant and Frederic Nietzsche, who both contracted expansive syphilis while very young. This lasted while they wrote their most important works. This conforms with the theory of Lombroso, which made genius dependent upon epilepsy.—*Math. H. Piéron* (Sorbonne).

3357. Berlucchi, C. *Contributo allo studio della psicosi allucinatoria cronica*. (Contribution to the study of chronic hallucinatory psychosis.) *Riv. sper. fren.*, 1931, 55, 520-586.—The author recognizes the value of the isolation of the chronic hallucinatory delusion, but observes that interpretations of it have varied widely. After examining the explanation of Clérambault, he finds that the latter has not arrived at the central fact that the patient feels part of his consciousness to be foreign to him; the experiences which beset him are so strange that he must attribute them to an extraneous origin. Berlucchi believes with several French authors that the hallucinations proceed from the delusion rather than the delusion from the hallucinations; but he does not feel that they are related in any simple way to the delusional ideas. They proceed from the same factor which conditions the delusion, and this may be an organic one. Thus he also differs with Claude, who sees the hallucination as a projection of repressed motives and affective complexes; and he reports several cases in which the anamnesis and clinical observation offer nothing which would justify such a theory.—*M. G. Willoughby* (Clark).

3358. Berry, R. J. A., & others. Report of mental deficiency committee. *Brit. Med. J.*, 1932, No. 3729, 322-344. Supp.—Committee appointed in 1930 by the British Medical Association. Mental defect as a medical problem; as a problem of human biology; some social considerations; appendixes; an ideal colony; community care; illegitimacy and mental deficiency; marriage of mental defectives.—(Courtesy *Bibliographia Eugenica*).

3359. Berry, R. J. A. Mental deficiency. I. Some family histories. *Eug. Rev.*, 1933, 24, 285-288.—Of 165 cases of mental defectives in Stoke Park Colony, Bristol, the parents of only 9.1% were both of "normal" mentality. Case descriptions and family histories are given.—B. S. Burks (California).

3360. Berze, J. Störungen des psychischen Antriebes. (Disorders of psychical impulsiveness.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 142, 720-773.—This theoretical article deals with disturbances in impulsiveness as they appear in schizophrenic and post-encephalitic syndromes. The most important conclusions reached are these: Every activity of the individual is at the same time a self-activity, dependent upon certain central functions which liberate forces. An activity is psychical if it has in itself a psychical correlate. Full psychical activity appears only in the waking state. Psychical activity is either spontaneous activity or reactivity, the former demanding a relatively higher degree of functional readiness. The impulses underlying reactivity spring from the external world, the organo-vegetative sphere of the individual, the subconscious or memorial possessions (the potential personality). The impulses underlying spontaneous activity have their source in the dynamic ego (the actual personality). Impulses are merely stimulating or directive forces. Executive force depends upon another source—affectivity, which is defined as the sum-total of general reactions of the organism in the direction of pleasantness or unpleasantness. An affect concentrates the available mental activity upon the impulse. Instinctivity is the sum-total of organo-vegetative impulses. The basic disturbance of schizophrenia is a primary insufficiency of psychical activity as defined here; this disorder is conditioned organically and cannot be derived psychically. An insufficiency in affectivity or instinctivity does not belong to the essence of schizophrenia. The post-encephalitic defect of impulsiveness, unlike that in schizophrenia, depends upon a loss of one specific impulsiveness-factor—the feeling of motor ability.—C. W. Fox (Rochester).

3361. Bleuler, E. Psychophysische Theorien in der Auffassung der Hysterie. (Psychophysical theories in the conception of hysteria.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 489-509.—"The psyche is neither mysterious nor inaccessible to observation, nor does it function without regard to law. It is, on the contrary, the only thing which we know from the inside and the outside in such a way that the interconnections of its functions can be known, while in the physical realm they remain to a large extent entirely hidden from us and other-

wise can, in part, be only indirectly inferred or constructed. The psyche is a certain complex of functions in the cerebrum which, according to its nature, is not distinguished from the other functions of the central nervous system, but appears to us as different in principle because we are able to know it from the inside. The neurologist has, therefore, no reason for shunning psychical explanations; on the contrary, since neurotic symptoms always involve psychical interconnections, only a consideration of the psychical factors can provide us with a real understanding of the causes, the symptomatology, and the necessary hints for treatment. Since the psyche is nothing but the uppermost complex of nervous functions, we may also understand that psyche and physis stand in continual close interrelations. The question regarding what is psychogenic and what is physiogenic in hysteria has a still greater practical than theoretical significance; psychical treatment is essential for psychogenic syndromes, physical for physiogenic syndromes."—C. W. Fox (Rochester).

3362. Bosch, G., & Gorriti, F. Nouvelle forme d'hallucination auditive verbale. (A new type of auditory verbal hallucination.) *Ann. méd.-psychol.*, 1932, 90, 439-446.—According to the authors' point of view, an hallucination is a "morbid image which assumes deceitful characteristics of reality" (a simple disturbance of the imaginative representation). It is believed that this definition conveniently embraces the three large groups of hallucinations: the hallucinations of spontaneous, involuntary character, the "fugitive" hallucinations, and the pseudo-hallucinations. A case description of delusional paranoia is presented. The patient's delusion is systematized and in the construction of the delusion, which appeared primitively, an ideo-sensory element, constituted by rather singular visual and auditory verbal hallucinations, prevailed.—R. J. Beitel, Jr. (Clark).

3363. Bourguignon, G., & Eliopoulos, S. Action de la diélectrolyse trans-cérébrale des ions chlore et potassium, sur la courbe oscillométrique chez les hémiplegiques. (The effect of transcerebral dielectrolysis with Cl and K ions upon the oscillometric curve in hemiplegics.) *C. r. Soc. biol.*, 1931, 106, 1140-1142.—(*Biol. Abst.* VII: 867).

3364. Bruck, A. W. Die eugenische Bedeutung des kindlichen Schwachsinn. (The eugenic significance of juvenile feeble-mindedness.) *Arch. f. soz. Hygiene u. Demog.*, 1932, 7, 125-132.—R. R. Willoughby (Clark).

3365. Charache, H. Occupational and psychotherapy in the treatment of cancer. *Med. J. & Rec.*, 1932, 136, 471-473.—A list of practical suggestions for the mental and physiological relief of cancer patients both at home and in the hospital.—R. C. Givler (Tufts).

3366. Chtopicki, W. Über anfallweise auftretende Zwangsercheinungen im Verlaufe von Parkinsonismus nach der epidemischen Encephalitis. (Obsessive outbreaks in the course of post-encephalitic parkinsonism.) *Arch. f. Psychiat. u. Nervenkr.*, 1931, 93, 1-27.—The author analyzes six cases of obsessive

ideas in parkinsonian post-encephalitics. He explains these attacks in terms of a sort of convulsion of the stream of consciousness (*Gedankenkrampf*) and by an affective anxiety state. There is a continuum, according to the author, between these states and the psychic modifications due to non-encephalitic obsessions. The fact that these phenomena occur only spasmodically may be due to an intermittent blocking of certain cerebral pathways which may be detected by the increase of extrapyramidal symptoms.—*M. G. Willoughby* (Clark).

3367. **Chu, K. C.** *Abnormal psychology*. Shanghai: Commercial Press, 1933. Pp. iv + 169. \$1.00 Mex.—This book covers the following chapters: (1) An historical retrospect; (2) Hypnosis and suggestion; (3) Hysteria and multiple personality; (4) Suppression and the unconscious; (5) Psychology of dreams; (6) Freud's pan-sexual theory; (7) Psychoanalysis. The viewpoints or theories of the various schools are plainly given, and certain important facts of abnormal psychology are presented, leaving the readers to judge for themselves what theory can best explain the particular facts under consideration. The author aims to make the readers (1) realize that abnormal psychology is a still growing science and that there may co-exist many theories, at least temporarily; and (2) acquire a systematic knowledge of abnormal psychology and find many problems for study.—*C.-F. Wu* (Nat. Res. Instit. Psychol., China).

3368. **Claude, H., & Dublineau, J.** *Délire de compensation de type mystique, à forme intuitive et pseudo-hallucinatoire*. (Compensatory delirium of a mystic type, intuitive and pseudo-hallucinatory in form.) *Ann. méd.-psychol.*, 1932, 90, 45-50.—A case study of a patient afflicted with chronic hallucinatory psychosis of a paranoid type. Symptoms were manifested in the form of delusional intuitions.—*H. W. Karn* (Clark).

3369. **Claude, H., Le Guillant, L., & Rondepierre, J.** *Considérations sur un cas de paraphrénie*. (Considerations on a case of paraphrenia.) *Ann. méd.-psychol.*, 1932, 90, 539-546.—A case study of a male of 51 years of age, unusual in that there is coexistence of a long-standing delusion of the paranoid type with an otherwise perfectly normal emotional, intellectual and social life.—*H. W. Karn* (Clark).

3370. **Claude, H., Migault, P., & Lacan, J.** *Spasme de torsion et troubles mentaux post-encephaliques*. (Spasm of torsion and post-encephalitic mental disorders.) *Ann. méd.-psychol.*, 1932, 90, 546-551.—A case study of a woman of 28 years of age in whom an infectious disease of encephalitic type was followed by a marked syndrome of dissociation combined with a condition of dystonia. This latter condition was characterized by involuntary contraction of the musculature resulting in violent acts of bodily twisting.—*H. W. Karn* (Clark).

3371. **Courbon, P.** *Dans quelle mesure peut-on dire que les néologismes des aliénés concernent des mécanismes et des réalités objectives, tandis que les métaphores sont tournées plus particulièrement vers la connaissance des états affectifs?* (To what degree

can it be said that the neologisms of psychotics concern objective mechanisms and realities, while metaphors are directed more particularly to knowledge of the affective states?) *Ann. méd.-psychol.*, 1933, 91, 189-192.—The case of a woman who repeated three apparently meaningless words very frequently is presented. The author thought one of the words had some objective reality, but could find no origin for the other two. No decision was reached to the question proposed, namely the extent that neologisms can be considered objective realities and metaphors as affective states.—*M. B. Mitchell* (New Hampshire State Hospital).

3372. **Courbon, P.** *De la constitution psychopathique à la psychose*. (On the psychopathic constitution in psychosis.) *Ann. méd.-psychol.*, 1932, 90, 146-152.—The report of a case in which the symptoms peculiar to a schizophrenic mother come to be exhibited in her children, though these same symptoms are considered by relatives as evidences of superior mentality. The question of the possibility of the inheritance of a constitution which gradually tends toward this abnormality is discussed without definite arrival at a conclusion.—*E. H. Kemp* (Clark).

3373. **Courbon, P.** *Délire d'explication prédémementiel*. (Delusion of predemential origin.) *Ann. méd.-psychol.*, 1933, 91, 175-178.—The case presented is that of a prostitute who could no longer pay her rent and developed ideas of persecution against her landlord. The ideas were more those of a normal person who had judged too quickly than of an insane person.—*M. B. Mitchell* (New Hampshire State Hospital).

3374. **Courbon, P., & Tusques, J.** *Maladies du rythme et de l'équilibre. Manie postébrueuse récidivante*. (Diseases of rhythm and of equilibrium. Recurrent post-alcoholic mania.) *Ann. méd.-psychol.*, 1932, 90, 51-56.—A case study of an alcoholic of 51 years of age who had been confined to the psychiatric hospital for observation and treatment seven times since 1924. No signs of intellectual deterioration were manifested. The case is of particular interest in that intoxication is followed by a true manic state which lasts for several days. The general etiology of the mania and its relation to alcoholism are discussed.—*H. W. Karn* (Clark).

3375. **Courtois, A., & Borel, J.** *Syndrome de démence précoce. Encéphalopathie de l'enfance*. (Syndrome of dementia praecox. Encephalopathy of infancy.) *Ann. méd.-psychol.*, 1932, 90, 61-65.—A summary of a series of observations made at the Henri-Rousselle psychiatric hospital on three patients each of whom had been afflicted with encephalopathy in infancy. The syndrome led to an early diagnosis of dementia praecox in each case. The probability that the present mental condition of these patients is due to the early brain disease is discussed.—*H. W. Karn* (Clark).

3376. **Delmas, F. A., & Doiteau, —.** *Un cas d'amnésie rétrograde totale*. (A case of total retrograde amnesia.) *Ann. méd.-psychol.*, 1932, 90, 454-459.—A report of an unusual case of an apparently

true total retrograde amnesia in a man of 30-40 years of age. Discussion on the paper follows.—R. J. Beitel, Jr. (Clark).

3377. De Saussure, R. L'origine psychogène des troubles physiques de la neurasthénie. (The psychogenic origin of the physical disturbances of neurasthenia.) *Arch. suiss. de neur.*, 1931, 27, 348-353.—The humoral alterations which Montassut found in depressive states are those which characterize the emotions, and "the physical symptomatology of neurasthenia is therefore conditioned by a persisting emotion which must be dissolved if one wishes to dispel the physiological disturbances which are its consequence."—M. G. Willoughby (Clark).

3378. Dubitscher, F. Der Rorschachsche Formdeuterversuch bei erwachsenen Psychopathen sowie psychopathischen und schwachsinnigen Kindern. (Rorschach's form-interpretation experiment with adult psychopaths and psychopathic and dull children.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 142, 129-158.—Ten Rorschach figures were presented to 100 male adult psychopaths. The number of responses was above the normal. Totality responses were generally more numerous than with normal adults. Rorschach's F-responses, which he considers to be indicators of capacity for lasting attention and perceptual acuity, are fewer in psychopaths than in normal persons. Intelligent productivity and capacity for inner creation appear to be lower in psychopaths than in normal persons. Stereotyped behavior in psychopaths lies in the region of the norm. Originality is less than in the case of normal subjects. Thus there is essentially a reduction in all intelligence-factors quantitatively in psychopaths, and they show heightened affective and impulsive tendencies. Their experience-types tend to lie toward the extratensive-egocentric and dilated. Differences were also found between different groups among fifty children—dull, definitely feeble-minded, or psychopathic—who were also studied. The number of responses made by these children lies between the values for normal and for psychopathic adults. With children detail responses are more frequent than totality responses.—C. W. Fox (Rochester).

3379. Edwards, K. H. R. A psychological case study of the amyostatic-akinetic form of encephalitis lethargica. *Brit. J. Med. Psychol.*, 1932, 12, 315-336.—Case history with emphasis on psychological symptoms, including an explanation of the incidence of somnolent and stuporous states on the basis of the experimental work of Pavlov.—E. R. Hilgard (Yale).

3380. Eyrich, M. Ueber Charakter und Charakterveränderung bei kindlichen und jugendlichen Epileptikern. (Character and character alteration in epileptic children and adolescents.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 640-644.—Epilepsy in childhood gives neither etiologically nor characterologically a unitary impression. One common trait seems to be a relatively undifferentiated personality. One syndrome is marked by a retardation of all mental processes. Also there may be an impoverishment of acts and a limitation in or loss of

activity. These changes lead to an unproductivity and inelasticity of epileptic thinking, to an incapacity for new ideas and for the discovery of new paths. The Rorschach test is a useful method here. A syndrome of explosive excitability may be found, as in adults, in children and adolescents; here there is an egocentric hypersensitivity toward trespass upon the person's interests or his own value, with tendencies toward violent passions, motor abreactions and ill-humor. Another syndrome is marked by an elementary, impulsive motor restlessness, a lack of goal, increased distractibility, nervous tension, and emotional vacuity. This last hyperkinetic syndrome appears to be peculiar to childhood. It is less frequent than the other two described. The three appear in different gradations and combinations.—C. W. Fox (Rochester).

3381. Ferguson, G. B. Mental hygiene in medical social work. *Ment. Health Observer*, 1933, 1, 2.—A discussion of the relation of mental hygiene and physical illness and the importance of an understanding and application of the principles of mental hygiene in the field of medicine.—P. Seckler (Clark).

3382. Fetzner, H. Die Dauerschlafbehandlung bei Psychosen. (The narcosis treatment in psychoses.) Bonn: Kubens, 1931. Pp. 56.—R. R. Willoughby (Clark).

3383. Foz, A. Contribución clínica a la enfermedad de Bourneville y Pellizi. (Clinical contribution to the study of Bourneville's disease.) *Bol. d. Instit. Psiquiat.*, 1932, 4, 27-32.—J. W. Nagge (Chicago).

3384. Glaus, A. Über Kombination von Schizophrenie und Epilepsie. (The combination of schizophrenia and epilepsy.) *Zsch. f. ges. Neur.*, 1931, 135, 450-500.—The author presents 12 cases, of which 8 are diagnosed both schizophrenia and epilepsy. This condition is not a simple combination of the two syndromes, but the epilepsy appears to have receded and given place to an acute schizophrenia. One case fell ill at eleven with dementia praecox, with onset of the epilepsy three years later; in all the others the schizophrenia followed the epilepsy by several years. Since the author has found only these eight cases with epilepsy among the 6000 schizophrenics in the records at Burghölzli, he concludes that the combination is rare; a schizophrenia has few opportunities to develop in the presence of a severe epilepsy. Even in the case in which the schizophrenia preceded the epileptic outbreak, the schizophrenic process was not aggravated thereby. The elicitation of the schizophrenia by the epilepsy seemed also to be a rare exception. Both in alternating and simultaneous processes the two psychoses seemed to influence each other very little.—M. G. Willoughby (Clark).

3385. Guiraud, P., & Deschamps, A. Le "fading" mental dans l'hébétéphrénie. (Mental fading in hebephrenia.) *Ann. méd.-psychol.*, 1930, 14, 136-140.—A further description of a phenomenon which has been described by Guiraud in its motor aspect. The name is taken from the vocabulary of radio-technology and is thought to describe the symptom unusually well. Ordinarily there is a progressive decrease in

vigor of articulation and there may be a lowering of the voice of the patient until it is no longer intelligible. The fading is also observed in the psychomotor domain.—*E. H. Kemp* (Clark).

3386. Guttman, E. *Nichtsystematische Schädigungen des Rückenmarks, seiner Wurzeln und Hüllen.* (Non-systematic injuries of the spinal cord, its roots, and sheath.) *Fortsch. Neur. Psychiat. u. Grenzgeb.*, 1933, 5, 97-109.—The first section of this article is devoted to a recapitulation of work on abnormal growths on the spinal cord. The second section is concerned with epidural abscesses and various forms of myelitis. Section III deals with the relation of meningitis to other diseases. In the last part, the use of roentgenology is considered. There is a bibliography.—*D. S. Oberlin* (Bryn Mawr).

3387. Helmoortel, J. *El síndrome laberíntico residual de los tumores cráneo-cerebrales.* (Labyrinthine syndrome resulting from intra-cranial tumors.) *Rev. oto-neuro-oftal. y d. cirugía neur.*, 1933, 8, 85-89.—Vestibular examination should never be overlooked in cases involving cranial tumor. Vertigo often follows cerebral traumatism. Quix stresses macular changes as playing the main rôle in the resulting vertigo. The Quix tests should constitute the basis for all examinations, although supplementary tests are indispensable in a complete vestibular examination. Since these first tests are frequently omitted it is questionable whether macular disturbances may not be present in many cases where the labyrinth has been considered normal. Since vertigo persists in many cases where the vestibule has been pronounced normal it is probable that the symptoms are to be traced to the macula.—*J. W. Nagge* (Chicago).

3388. Heuyer, G., & Dublineau, J. *Syndrôme de dépersonnalisation chez un encéphalitique.* (A syndrome of depersonalisation in an encephalitic.) *Ann. méd.-psychol.*, 1932, 90, 204-207.—Psychic disorders characterized by a feeling of corporeal transformation, of modification of personality parallel with the modification of the external environment, and neurological symptoms such as hypertonia, digital and lingual trembling indicating a definite encephalitic involvement make up the clinical picture. The patient realizes a syndrome of depersonalisation in which the obsessing idea of a change of personality is accompanied by a painful state of anxiety. This seems to be an additional instance of the innumerable encephalitic manifestations and furnishes an additional argument in support of the thesis of the organic origin of all mental disorders.—*E. H. Kemp* (Clark).

3389. Heuyer, G., & Serin, —. *Les formes arrêtées ou fixées de la démence précoce.* (The arrested or fixed forms of dementia praecox.) *Ann. méd.-psychol.*, 1930, 90, 119-136.—The authors present the opinions of leaders in the field which bear upon this subject and report three case studies selected from a great number in which the fixed or arrested form of dementia praecox is illustrated. Typically we have: an excited episode, with ideas of persecution, an hallucinatory syndrome, and serious

personality disorders; disordered behavior results in commitment with a diagnosis of dementia praecox; after a short while the excitement subsides and the patient is allowed to leave the asylum, but is really not cured. He remains incapable of providing for himself or of having the least initiative. He may lead an apparently normal life under familial surveillance, but the least accident may result in the destruction of the unstable equilibrium, and it is usually necessary to commit him a second time.—*E. H. Kemp* (Clark).

3390. Hoffmann, H. F. *Das Problem der Neurosen in moderner klinischer Beleuchtung.* (The problem of the neurosis from the modern clinical point of view.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 267-276.—We should speak of neuroses only when the pathogenesis has discoverable psychical roots. We may denote as functional those disorders which arise essentially without psychical participation, as expressions of a merely organic lability of somatic functions. Such a distinction has both theoretical and therapeutic importance.—*C. W. Fox* (Rochester).

3391. Hösch-Ernst, L. *Versuch einer Deutung der prozentualen Häufigkeit der Verbindung von Genialität und Psychopathie.* (An attempt to explain the percentage frequency of association between genius and psychopathy.) *Indus. Psychotechn.*, 1933, 10, 29-30.—From an analysis of Terman's study of genius the author arrived at the opinion that in order to become a genius a person must have two fundamental characteristics: he must possess (1) intuitive intelligence, and (2) great emotionality and affectivity for ideas. At times, creative persons get so much absorbed in an idea that hardly any outside world exists for them. When this introversion reaches a dominant stage in the life of those individuals, adjustment to the outside world becomes destroyed, and this results in psychopathic manifestations.—*C. Burri* (Chicago).

3392. Iljon, I. G. *Epilepsie und chronische progressive Hyperkinese bei 5 Kindern männlichen Geschlechts in einer Familie.* (Epilepsy and chronic progressive hyperkinesis in 5 male children in a family.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 773-777.—(Courtesy *Bibliographia Eugenica*).

3393. Jacobi, J. *Eine gleichartig verlaufende schizophrene Psychose bei einem zwillingspaar.* (A schizophrenic psychosis of similar developmental history in a fraternal twin pair.) *Zsch. f. ges. Neur.*, 1931, 135, 298-304.—Two twins, of different sexes, suffered a schizophrenic episode at the age of 30 and again at 33. The author lists the analogous features of the psychotic content: anxiety, jealousy, feelings of guilt and remorse, etc., with delusions of reference and hallucinations in the woman. The conclusion is drawn that character, personality, and the whole biological and endogenous constitution play an important rôle in the genesis of psychosis, although environmental influences should not be underestimated.—*M. G. Willoughby* (Clark).

3394. Käufer, H. *Beiträge zur Frage der sensorischen Amusie.* (Contributions to the problem of

sensory amusia.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 617-639.—A piano tuner was injured in the frontal-temporal region of the cerebrum. In spite of probable injury of the left second frontal convolution, there is no important disturbance in motor musical performance. The patient's range of tonal hearing is normal. His tonality is disturbed; he does not even recognize major or minor triads with any certainty. His musical memory is so disturbed that he is unable to name pieces once very familiar to him. Defects in rhythm and tempo also appear. The writer discusses the case in the light of *Gestalttheorie*.—C. W. Fox (Rochester).

3395. Klein, R. Ueber den Sprachablauf bei Aphasischen. (The flow of speech in aphasic patients.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 156-179.—Two widely different cases of sensory aphasia are described. The writer attempts to show the importance of two basic factors in the formation of the total picture. By the static factor is meant the speech-material at the individual's command, the resting linguistic capacities. The dynamic factor includes all those components which set the former into activity. "In the analysis of an individual case, one of the main problems should be to work out the various factors determining the total picture and to evaluate and distinguish them according to this point of view."—C. W. Fox (Rochester).

3396. Knigge, F. Haftpsychosen bei weiblichen Straf- und Untersuchungsgefangenen. (Prison psychoses among women, including both those convicted and those held for examination.) *Arch. f. Psychiat.*, 1932, 97, 533-545.—The author reports 60 cases. The crime in 30 cases was theft; in 7 each, swindling and sex offenses; in 4, receiving stolen goods; and in 4 each, offenses against officials and injury to the person. Psychogenic disorders were by far the most frequent (39 women). These were exclusively psychopathic personalities with emotional irritability and the hysterical constitution. There were 8 schizophrenics and 4 drug addicts. Outbreaks against discipline occurred much more often than the moody states which are observed among men prisoners under similar provocation. A culmination of irritability around the time of menstruation was characteristic for a whole series of cases. As among men prisoners, the majority of the paranoid reactions took the form of delusional ideas. A querulous state was present in only one instance, and then only at the height of a condition of irritable depression. One case, a clear-cut hysterical, showed attempts at dissimulation.—M. E. Morse (Catonsville, Md.).

3397. Lacan, J. De la psychose paranoïaque dans ses rapports avec la personnalité. (Paranoid psychosis in its relation to personality.) Paris: Le François, 1932. Pp. 381.—The author presents the problem of the relationships between psychosis and personality. He attempts to give, in the first part, an objective definition of the phenomena of personality. In the second part he tries to show that the application of a rigorous method leads to a precise

clinical type. Bibliography of 325 studies.—Math. H. Piéron (Sorbonne).

3398. Levy-Valensi, J., Migault, P., & Caron, —. Activité procédurière ininterrompue pendant 40 ans chez une délirante processive, fille d'aliénée. (Litigious activity uninterrupted for 40 years in a delusional paranoiac, daughter of an insane mother.) *Ann. méd.-psychol.*, 1932, 90, 448-454.—A case report of a typical querulous psychosis. The patient, a woman 79 years of age who shows no evidence of grave mental weakness, has manifested paranoid behavior for the past 42 years, the disturbance having commenced shortly after institutionalization of the mother for "senile dementia with excitement." The authors point out that a factor of pathological heredity is suggested here, although the inherited condition is dissimilar. Discussion on the paper, relative to the legal aspects involved, follows.—R. J. Beitel, Jr. (Clark).

3399. Logre, B. J., & Lagache, D. Hallucinations verbales et respiration. (Verbal hallucinations and respiration.) *Ann. méd.-psychol.*, 1933, 91, 166-174.—The case history is presented of a woman who suffers from verbal hallucinations when inhaling, especially after speaking. When she speaks loudly she does not hear the voices, but as soon as she stops speaking she hears them. Thus the verbal hallucinations appear as soon as there is a lessening of mental activity and temporary lowering of nervous tension.—M. B. Mitchell (New Hampshire State Hospital).

3400. Lopes, C. Ethnographische Betrachtungen über Schizophrenie. (Ethnographical considerations regarding schizophrenia.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 142, 706-711.—This study is based upon the frequency and forms of schizophrenia found among the patients in a Brazilian hospital; its purpose is "to serve as a basis for future studies of the frequency and evolution of schizophrenic processes and their relations to the ethnological types found among inhabitants of the tropics."—C. W. Fox (Rochester).

3401. Luxenburger, H. Endogener Schwachsinn und geschlechtsgebundener Erbgang. (Endogenous feeble-mindedness and sex-linked inheritance.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 320-332.—Supports the hypothesis of Rosanoff according to which there is dimerism with a recessive factor pair in an autosomal chromosome and another in the X chromosome.—(Courtesy *Bibliographia Eugenica*).

3402. Marchand, L., Bonnafoix-Sérieux, —, & Rouart, J. Otite, mastoïdite, état méningé, syndrome de démence précoce hébéphrénocatatonique. (Otitis, mastoiditis, meningeal state, syndrome of hebephrenocatonic dementia praecox.) *Ann. méd.-psychol.*, 1932, 90, 279-282.—A case study of a patient who showed signs of severe otitis of the right ear when 8 years of age. The disease refused to yield to treatment and at 18 years of age symptoms of mental disorder were manifested. The nature of these later symptoms led to an eventual diagnosis of encephalitic dementia praecox. The case is cited as another example of mental disorder caused by invasion of the

nervous centers by toxi-infectious elements.—H. W. Karn (Clark).

3403. **Mazzi, L.** *Campo visivo di fatica nei melanconici.* (The field of vision during fatigue in cases of melancholia.) *Arch. di ottalmol.*, 1932, Nos. 2, 3, 56-58; 99-121.—In cases of melancholia the author finds a narrowing of the field of vision with fatigue only if the patient is in a state of distraction.—R. Calabresi (Rome).

3404. **Menninger, W. C.** *Therapeutic methods in a psychiatric hospital.* *J. Amer. Med. Asso.*, 1932, 99, 538-542.—A description of the modern hospital treatment of mental diseases. Special effort is made to provide an environment for the patient which is especially suited for his needs rather than to force him to adapt to a standardized hospital routine. The entire hospital staff coöperates in gaining the confidence of the patients and in contributing to a scientifically based friendship. The employees of the hospital are of a superior type and during their term of employment are given education in psychiatric principles and the psycho-dynamic point of view. Sports and clubs afford the patient recreation in addition to reading and music. Patients are allowed to participate in special activities such as attending public lectures or studying school subjects. More systematic techniques of psychotherapy are used for some cases. Physical therapy of some kind is an assigned prescription for every patient daily.—D. J. Ingle (Minnesota).

3405. **Michel, R.** *Fragen der Psychopathologie bei der Beurteilung Jugendlicher.* (Psychopathological questions in judging youths.) *Vjsh. f. Jugendk.*, 1933, 3, 39-46.—The author emphasizes the need of parents, teachers and educators to be able to discriminate between normal psychology and pathology. Most psychoses begin during adolescence, many of them gradually with slight personality and character changes. Such common early manifestations are briefly sketched for schizophrenia, psychopathic constitution, impulsion psychosis, epilepsy, manic-depressive psychosis, and mental defect.—M. Lee (Chicago).

3406. **Moreau, M.** *Un psychiatre amateur en 1830: Wilhelm Waiblinger.* (An amateur psychiatrist in 1830: Wilhelm Waiblinger.) *Ann. méd.-psychol.*, 1930, 90, 113-119.—An account of a diagnosis of the dementia of the poet Hoelderlin by Waiblinger in which the "amateur psychiatrist" exhibited a power of observation and of diagnosis which was quite unusual for his time. He mentioned the different elements of schizophrenic thought just as Bleuler has defined them. Many quotations are given.—E. H. Kemp (Clark).

3407. **Noble, T. D.** *The use of dramatics and stage craft in the occupational treatment of mentally ill patients.* *Occup. Therap. & Rehab.*, 1933, 12, 73-81.—One patient taking the part of a girl who sang and danced rather unrestrainedly thus fulfilled a childhood desire to act with complete lack of restraint. This outlet proved helpful. In the rôle of a meek and self-effacing wife she came to realize how

she had concealed her timid self beneath a veneer of sophistication. Another somewhat self-centered patient was helped by the realization that in the dramatics she was doing something for other people's enjoyment. A man whose difficulty went back to childhood and a younger brother who was preferred by the parents gained insight into this condition through the dramatic rehearsals in which another actor was clearly his superior. Certain other patients felt that the dramatics took them away from themselves and aroused interest in others.—H. E. Burt (Ohio State).

3408. **Oppler, W.** *Zum Problem der Erbprognosebestimmung: Ueber die Erkrankungsansichten der direkten Nachkommen von Schizophrenen in Schlesien.* (The problem of determining hereditary prognosis: the disease prospects of the direct descendants of schizophrenics in Silesia.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 549-616.—The writer reports studies of the descendants of 109 schizophrenic patients. The most important finding is that more than 50% of the individuals in the first filial generation are mentally abnormal; 9.7% of the individuals in this generation develop schizophrenia. Among the grandchildren, there are fewer cases of mental abnormality, but still the percentage is considerable. There is a probability of 0.0272 that a grandchild of a schizophrenic will develop this disorder. The writer's conclusions agree, in general, with those of other investigators.—C. W. Fox (Rochester).

3409. **Ornstein, A. M.** *Amaurotic family idiocy.* *Med. J. & Rec.*, 1933, 137, 64-67.—A clinical report of a case of the juvenile form and one of an abortive character, with discussion as to their physiological causation.—R. C. Givler (Tufts).

3410. **Penrose, L. S.** *Mental deficiency. II. The sub-cultural group.* *Eug. Rev.*, 1933, 24, 289-291.—Paper to appear in full in *Brit. J. Psychol.*—B. S. Burks (California).

3411. **Peterman, M. G.** *Convulsions in childhood.* *J. Amer. Med. Asso.*, 1932, 99, 546-550.—The author presents an analysis of 419 cases of children under 15 years who were subject to convulsions. Convulsions of childhood are directly due to or are associated with certain diseases and this group of cases was studied with this point in view. It is shown that convulsions of the newly born are usually due to acute infections or to cerebral birth injury. In later infancy spasmophilia is the usual cause, while in childhood it is idiopathic epilepsy. A great deal of speculation has arisen because of the high incidence of convulsions between the ages of 6 and 36 months. Probably at this time the infant is subject to certain diseases which may be direct or indirect causes of the convulsions. The immediate cause of the convulsion is probably a cerebral vasomotor reaction which first produces cerebral anemia, being followed immediately by cerebral congestion and edema. Methods of treatment are described.—D. J. Ingle (Minnesota).

3412. **Petrazzani, P.** *A proposito di un caso eccezionale di paralisi progressiva. Considerazioni e commenti.* (An exceptional case of progressive

paralysis; considerations and comments.) *Riv. sper. fren.*, 1931, 55, 229-249.—The author reports the case of a general paretic who died at the age of 65 of pneumonia, 27 years after the onset of his paresis and 23 years after a remission which had all the appearances of a cure; his brain, however, showed the characteristic lesions. The author recalls the cases reported by Spielmeyer, whose brains showed the lesions characteristic of senile dementia although their behavior was normal. There may thus be lack of correspondence between the anatomical and clinical findings, and the author explains this by the potentialities for defence and reaction which the organism possesses, and which may be aided or stimulated by appropriate therapy; it may be partly in this way that malaria therapy operates.—*M. G. Willoughby* (Clark).

3413. Plattner-Heberlein, F. *Persönlichkeit und Psychose asthenischer und pyknischer Schizophrenen*. (Personality and psychosis of asthenic and pyknic schizophrenics.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 276-320.—This study, dealing with personality and psychosis in asthenic and pyknic schizophrenics, is a clinical contribution to the psychiatric problem of constitution. Case studies of twenty schizophrenics (ten asthenics and ten pyknics) are presented. The asthenics come from higher social strata than the pyknics. The types of profession of the former are generally more differentiated and their attitudes toward their professions are less clear-cut. The asthenics appear to show a tendency toward infectious diseases, but are immune to certain others—arteriosclerosis with apoplexy, diabetes, etc.—found among the pyknics. Before the onset of their psychoses, the asthenics were pronouncedly schizoid, the pyknics syntonik. The asthenics developed their psychoses, on the average, early in life and passed in from one to three years into catatonic terminal states. The disease begins later, in general, in the pyknics and shows a relatively mild and protracted course with a chronic paranoid state. The prognosis for the asthenics is unfavorable; for the pyknics, it is essentially more favorable. The writer concludes that there are intimate relationships between character and psychosis.—*C. W. Fox* (Rochester).

3414. Poli, C. *Sulla patogenesi dell' epilessia*. (The pathogenesis of epilepsy.) *Riv. sper. fren.*, 1931, 55, 284-289.—Among other measures indicated as capable of provoking crises in epileptics, the author tried intramuscular injection of adrenalin and hyperpnea on seven epileptics. The first raised the maximal blood pressure and depressed the minimal; the second depressed the maximal and raised the minimal. The adrenalin induced a crisis in only one subject, the hyperpnea in four; the others reacted to neither. In order to determine whether the appearance of crises was related to variations in pressure, Poli injected adrenalin intravenously, with the almost instantaneous effect of raising both pressures, but the minimal weakly. The injection of Lepetit arteriol lowered the maximal tension but had practically no effect on the minimal; neither of these last two measures provoked crises.—*M. G. Willoughby* (Clark).

3415. Redalié, L. *Les types réactionnels psychiques*. (Psychic reactive types.) *Ann. méd.-psychol.*, 1932, 90, 269-277.—As a result of investigations on reaction types the author arrives at the following conclusions: (1) The majority of pathological psychic reactions are of the cycloid and schizoid type. (2) Hysterical and epileptic reaction types are of secondary importance. (3) The "Bonhoeffer reactive type" is the expression of a sudden invasion of the nervous centers by toxic infectious elements.—*H. W. Karn* (Clark).

3416. Sapir, E. *Cultural anthropology and psychiatry*. *J. Abn. & Soc. Psychol.*, 1932, 27, 229-242.—Cultural anthropology has emphasized the group and its traditions in contradistinction to individual variations of behavior, which have been the field of the psychiatrist. As tangible problems of behavior rather than the selected problems set by recognized disciplines are followed, it is discovered that the field of social psychology, which is not more social than it is individual, is the mother science from which stem both the abstracted impersonal problems as phrased by the cultural anthropologist and the realistic explorations into behavior which are the province of the psychiatrist. Cultural anthropology is valuable not because it uncovers the archaic in the psychological sense, but because it is constantly rediscovering the normal, which is of the greatest importance to the psychiatrist. The so-called culture of a group of human beings, as it is ordinarily treated by the cultural anthropologist, is essentially a systematic list of all the socially inherited patterns of behavior which may be illustrated in the actual behavior of all or most of the individuals in the group. A personality is carved out by the subtle interaction of those systems of ideas which are characteristic of the culture as a whole, as well as of those systems of ideas which become established for the individual through special types of participation.—*C. H. Johnson* (Boston Psychopathic Hospital).

3417. Schlotter, B., & Svendsen, M. *An experiment in recreation with the mentally retarded*. Chicago: Behavior Research Fund, 1932. Pp. 75.—This publication is a summary of two years' work at the Lincoln State School and Colony, Lincoln, Ill., a state institution for the feeble-minded which is a joint project with the Illinois Institute for Juvenile Research. There were 2,485 patients in all, 898 of whom are called educable (above 50 IQ) and 1587 custodial (below 50 IQ). Approximately 1100 inmates now have daily experimental periods of supervised play. In spite of the crowded conditions, previous inactivity of the subjects, lack of adequate materials, and a staff of only 7 trained and 5 untrained workers, very satisfactory results are reported. Among the results are: a general improvement in individual "problem cases" as well as in group discipline; the actual learning of complex games such as basketball by a group averaging 62 IQ; improvement in table manners and in dressing; a general improvement in the attitudes of the inmates themselves and their increased happiness; improvement in the attitudes of employees toward their wards. The study

offers practical contributions in the field of play. A classification of games according to degree of motor activity involved is appended. There is a classification of play activities into those dependent upon special materials and those for which no materials are necessary. There is also a classification of play activities according to degree of complexity of the social organization involved. The statement is made that play activities dependent upon reasoning or involving the use of language are, for the most part, unsuited to mentally retarded children. The suggestion is offered that games can be made of more psychotherapeutic value to the mentally ill and the socially maladjusted than has been the case hitherto. Data are presented for the mental age levels at which different types of play are possible. There is a careful analysis of the frequently used games on a scale of complexity. The various factors which enter into the formation of coherent play groups, such as physical development, mental age, attitude toward the game, and previous play experience, are discussed. There is a further confirmation of the idea that mental age is a more important factor than chronological age in determining interests and abilities. Rate of development of play interests is slower in mentally retarded children than in normal children, although the course of development is the same. Mentally retarded children of a given mental age, but older chronologically, are slower in learning than those of the same mental age who are younger chronologically. Observations tend to substantiate the theory that there is little correlation of sense of rhythm or of manual ability with general intelligence. These conclusions are the result of observations by the play leaders.—C. C. Hayes (Mooseheart Laboratory for Child Research).

3418. Simon, T., & Larivière, P. *Hypothèses sur la démence précoce (étude du niveau mental)*. (Hypotheses on dementia praecox. A study of the mental level.) *Ann. méd.-psychol.*, 1932, 90, 497-510.—The authors raise three questions: (1) Is there mental deterioration in dementia praecox? (2) What is the nature of this deterioration? (3) Is it primary or secondary? The difficulty of defining dementia praecox itself; the difficulty of determining what the intelligence was before the onset of the disease and the difficulty of testing the intelligence of patients are discussed, with illustrative case histories.—J. C. Spence (Worcester, Mass.).

3419. Sjögren, T. *Klinische und vererbungsmedizinische Untersuchungen über Oligophrenie in einer nordschwedischen Bauernpopulation*. (Clinical and medical heredity studies of feeble-mindedness in a peasant population of northern Sweden.) Copenhagen: Levin & Munksgaard, 1932. Pp. 121.—A community with extensive family records.—(Courtesy *Bibliographia Eugenica*).

3420. Ssucharewa, G. *Ueber den Verlauf der Schizophrenien im Kindesalter*. (The course of schizophrenia in childhood.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 142, 309-321.—The study is based upon studies of 107 cases (ages 7-17). Schizo-

phrenia in early life may appear in one of two basic forms. The first form belongs to schizophrenia simplex. Normal childish activity and affective contact with environment suffer first. Urges toward various activities weaken. Thinking becomes formal and vacuous. Tendencies toward automatisms and stereotyped behavior appear. Affective relations of the child to parents and to other persons suffer. An imperfect unification of mental functions is one of the earliest symptoms. Later, the individual may develop hebephrenic or catatonic traits; the latter predominate in the case of children. The onset in the chronically progressive forms is insidious or sometimes sub-acute, and may appear as early as the fifth year. The available data indicate that the disorder is endogenous rather than reactive in Bumke's sense. The second basic form is the acute schizophrenia of pubescence. In most cases there are remissions after the first attack. A chronic course is atypical. Many clinical sub-forms appear, as in adults. These cases in the second group seem to point toward an organic toxic basis. The two groups taken together give evidence that the hereditary endogenous aspect cannot, taken by itself, explain entirely the pathogenesis of schizophrenia. Compared with the two main forms described, acute forms in childhood and chronic forms in pubescence are rare.—C. W. Fox (Rochester).

3421. Steblow, E. M. *Das Problem der Klassifizierung der Epilepsieformen*. (The problem of classifying forms of epilepsy.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 142, 333-349.—All the classifications of epilepsies made hitherto have been constructed in the light of some one unitary principle (anatomical, clinical or etiological) and have ignored the other points of view. Our knowledge of epilepsy is still too imperfect to authorize a better classification.—C. W. Fox (Rochester).

3422. Steinitz, K. *Basedow nach psychischen Traumen*. *Arzt. sachv. Ztg.*, 1932, 38, 57-60; 71-79.—In certain persons predisposed to Basedow's disease a psychic trauma acts as release for the illness. The thyroid gland plays the chief rôle in the pathogenesis. But the thyroid and a highly sensitized nervous system act and react upon each other in circular fashion. This is graphically presented by a circle with the thyroid at the upper pole, the vegetative nervous system at the right, the psyche at the lower pole, and the centres of vascular innervation at the left. The other glands of internal secretion are the upper pole of a supplementary semi-circle, above the circle. The different symptoms of Basedow's disease seem to rest upon a disturbance of the nervous system, rather than upon the thyroid alone. Accumulated psychic alteration eventuates in illness only in those relatively rare cases which are peculiarly disposed to Basedow's disease. In terms of the diagram Basedow's is a hyperthyroidism with a simultaneous involvement of the other glands of internal secretion. 130 cases of Basedow caused by trauma were found in the literature. Descriptions of only 83 of these were adequate to purposes of this study. 39 descriptions are given. Nearly half of the 83 are rated as

genuinely traumatic because they seemed healthy before the traumata. It is not possible, however, to separate the parts played respectively by somatic wounds and by psychic injury. 7 cases having multiple traumata emphasize the importance of reaching a certain mass or violence of emotion. Often the releasing trauma is one of relatively minor importance. It seems to be only the match which sets off the powder train—the constellation of the disturbances laid down in the nervous system. These disturbances determine the course of the Basedow. These cases are like others of Basedow's in showing exophthalmos in 83.5% of the cases, and in having a 2:1 ratio of women to men. In three fourths of these cases the development was in from one day to a week, while the other fourth required from one month to over a year. No theory of Basedow's can be wholly accepted or wholly rejected. Basedow's is just the sort of disease which compels us to use the concept constitution. But constitution is rich in variables. Of these we can perceive their kind, but we cannot measure them.—*T. H. Haines* (New York).

3423. Thomas, J. M. Fragments of a schizophrenic's "Virgin Mary" delusions. *Amer. J. Psychiat.*, 1932, 12, 285-293.—Presentation and discussion of "Virgin Mary" delusions of a schizophrenic patient. "The writer has attempted to deal with only the formal aspect of the patient's fantastic beliefs and odd behavior; to trace some of the experiences which have lent color to the delusional formations which she expressed." It appears that the patient's delusions and unusual behavior "are denatured and condensed conflicts between disturbing crude instinctive and higher idealistic urges. A careful scrutiny of her religious readings showed the merging of these opposing complexes into their particular fantastic and distorted outlets."—*N. Goldman* (Boston Psychopathic Hospital).

3424. Tracy, E. A. The sympathetic in epilepsy. *Med. J. & Rec.*, 1932, 136, 232-234.—Both the conspicuous white spots on the skin of epileptics and the smaller "new born" spots are evidences of a hyper-tonia of the sympathetic neurones, while the abnormal vaso-constriction reflexes that appear in response to stroking the skin indicate a disordered sympathetic nerve action. Clinical findings to support this view revive Echeverria's often-discounted belief that sympathetic lesions are proper to epilepsy.—*R. C. Givler* (Tufts).

3425. Treadway, W. L. Medical and psychiatric services in federal penal and correctional institutions. *Amer. J. Psychiat.*, 1932, 12, 67-72.—An outline of the general policies followed in the organization of the medical service for the federal penal and correctional institutions by the United States Public Health Service.—*N. Goldman* (Boston Psychopathic Hospital).

3426. Truelle, V., & Casalis, B. Contribution à l'étude des délires chez les paralytiques généraux après impaludation. (Contribution to the study of delusions in general paretics after malarial treatment.) *Ann. méd.-psychol.*, 1932, 90, 207-213.—On 66 pa-

tients studied the results have been as follows: 13 patients showed no delusion either before or after impaludation; 29 showed more or less systematized delusions of grandeur or of hypochondria before treatment, with 14 exhibiting improvement, 12 no change, and 3 a secondary hallucinatory delirium after the treatment. Brief extracts from case studies are given.—*E. H. Kemp* (Clark).

3427. Van Bogaert, L., Sweerts, J., & Bauwens, L. Sur l'idiotie amaurotique familiale. Etude sémiologique du syndrome de décérébration et des automatismes primitifs de l'enfant. (On amaurotic family idiocy. Semiologic study of the syndrome of decerebration and of the primitive automatisms of the infant.) *Encéph.*, 1932, 27, 196-223.—Three cases of amaurotic family idiocy and other forms of mental abnormality in two generations of a family descended from Polish Jews.—(Courtesy *Bibliographia Eugenica*).

3428. Vié, J. La notion d'insuffisance cérébrale. (The notion of cerebral insufficiency.) *Ann. méd.-psychol.*, 1932, 90, 176-187.—The ensemble of clinical manifestations which indicate the suspension, more or less pronounced, transient or permanent, of the non-localized functions of the forebrain are designated under the name "syndrome of cerebral insufficiency." The manifestations are: the reduction of spontaneous activity, the rapid decrease of effort and of reaction, the lack of adaptation or apraxism, and the degradation of the intellectual level.—*E. H. Kemp* (Clark).

3429. Wallon, H. Syndromes d'insuffisance psychomotrice et types psychomoteur. (Syndromes of psychomotor insufficiency and psychomotor types.) *Ann. méd.-psychol.*, 1932, 90, 369-384.—After a consideration of the literature on the subject the author adopts the following classification of insufficient motor types: the infantile motor, asynergic, the inferior extrapyramidal, the middle extrapyramidal, the superior extrapyramidal, the cortical projective, and the cortical associative. Intermediate and mixed types also exist. A detailed presentation of the motor syndrome of each type follows. The author believes and attempts to show that many of the psychic manifestations are analogous to and have the same general basis as the inadequate motor reactions.—*P. Seckler* (Clark).

3430. White, W. A. Forty years of psychiatry. *Nerv. & Ment. Dis. Monog. Ser.*, 1933, No. 57. Pp. 154. \$3.00.—The author's aim is "to give a picture of my personal experience in this department of medicine," not an exhaustive survey of the scientific field or an autobiographical account. There are nineteen chapters, beginning with the author's background, his introduction to psychiatry, and the gradual evolution of psychiatry as he witnessed it from mere custodianship to humanitarian care, and the slow introduction of scientific concepts. Particular stress is laid upon medical psychology, psychoanalysis, and hospital administration. He concludes with a sketch of his conception of the modern hospital and his summary of the ideas which appear

paramount to him.—*M. H. Erickson* (Worcester State Hospital).

3431. Williams, E. H., & Harding, F. C. Morbid somnolence and narcolepsy. *Med. J. & Rec.*, 1933, 137, 71-74; 101-102.—Some cases of narcolepsy (irresistible sleepiness without cataplexy) seem to have definite pituitary involvement and respond positively to pituitary therapy, but there are also cases of pituitary tumor in which there are cataplectic attacks without morbid somnolence. "There seems to be no direct relationship between narcolepsy and the psychoses."—*R. C. Givler* (Tufts).

3432. Wolfer, L. Zur Therapie der Schizophrenie. (Therapy in schizophrenia.) *Zsch. f. ges. Neur. u. Psychiat.*, 1931, 135, 321-322.—The author postulates as the origin of schizophrenia a tubercular lesion invading the endocrine system and producing cerebral alterations. Beginning with this hypothesis, he has tried all the endocrine and cerebral therapies. In 22 cases he obtained 32% cures and 18% remissions. In others, the condition remained stationary. In the cases benefited, the psychosis was recent. The presence of a tainted heredity had no effect on the success of the therapy.—*M. G. Willoughby* (Clark).

3433. Zalla, M. Neuropatologia e psichiatria. (Neuropathology and psychiatry.) *Minerva med.*, 1932, No. 15, 513-518.—*R. Calabresi* (Rome).

[See also abstracts 3312, 3314, 3322, 3331, 3347, 3518, 3528, 3537, 3572, 3590.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

3434. [Anon.] Facts about juvenile delinquency. *U. S. Dept. Labor, Child. Bur.*, 1932, No. 215. Pp. 45.—A pamphlet designed to acquaint the general public with the facts, problems and ramifications of juvenile delinquency. Figures are presented covering the extent and trend of juvenile delinquency, and the nature and causes of it are discussed. Preventive programs now in progress in the various states and suggestions for future programs involving the co-operation of governmental, educational, and parental forces are presented. The section on treatment of delinquency takes up the work of the police, the juvenile court, and agencies and institutions caring for delinquent children. Excerpts from the reports of various federal committees investigating the problem are included throughout the report. Suggestions for further reading follow each section.—*P. Seckler* (Clark).

3435. Arnett, C. E. The social beliefs and attitudes of American school board members. Emporia, Kan.: Emporia Gazette Press, 1932. Pp. xvi + 235.—Approximately 5000 copies of the Harper social belief and attitude test, "slightly modified" (Harper, M. H., Social beliefs and attitudes of American educators. New York: Bureau of Publications, Teachers College, Columbia University, 1927) were distributed to members of 699 boards of elementary, secondary and junior college schools throughout the 48 states. Of these, 1,076 were returned, representing 656 boards in 45 states. These board members are

described, in general, as conservative. Beliefs and attitudes are interpreted relative to geographical location, size of community, method of selection, age, sex, vocation, income, church and political affiliation or preference, and years of school attendance.—*M. B. Jensen* (Chicago).

3436. Austin, M. Character and personality among American Indians. *Character & Personality*, 1933, 1, 234-237.—Subconscious mentality, or the capacity to "dream true," increases the farther back we go toward the primitive mind. Along with this emergence of subconscious mentality there is also among primitives a pronounced emergence of genius processes by which creative power is more widespread than among highly civilized people. Among the Indians this process is the emergence of an experimentally acquired racial habit. Certain practices and behavior forms tend to encourage development in this respect, such as prayer, fasting, continence, silence, ritual acts, singing, and dancing. Americanized methods of education tend to disintegrate the influence of this tribal discipline.—*M. O. Wilson* (Oklahoma).

3437. Bäumer, G. Die Generationen im Frauen-schicksal. (The generations in the destiny of woman.) *Dtsch. Schule*, 1933, 37, 121-131.—The problem of woman's place in a changing society is viewed from the angle of her adaptability at various ages. The development of her progress in various fields is reviewed, with the effect it has had upon the home. The need for training in the school for her duties as home-maker and for the vocational fields is dealt with.—*A. B. Herrig* (Michigan Central State Teachers College).

3438. Berman, L. Crime and the endocrine glands. *Amer. J. Psychiat.*, 1932, 12, 215-238.—The author's thesis is that "crime is due, in a Gestalt sense, to a perversion of the instinctive drives dependent upon a deficiency and unbalance of the endocrine glands." He finds, from an endocrinological study of 250 criminals and a comparable number of "normal" controls of about the same age period, "that endocrine disturbances occur at least from two to three times as frequently among the criminal group as they do in a control group. Also, that certain types of crime tend to be associated with certain types of endocrine deficiency and unbalance." The author comes to similar conclusions from a study of 196 juvenile and adolescent delinquents as compared with a group of 298 apparently well and healthy children and adolescents of the same age period. Berman gives case histories of three juvenile delinquents "who were rescued and regenerated by endocrine therapy." The paper is concluded with some suggestions as to the study, treatment, and prevention of crime, in accordance with the author's endocrine hypothesis. A long bibliography is included.—*N. Goldman* (Boston Psychopathic Hospital).

3439. Beth, K. Religionspsychologie als Existenzialpsychologie. (The psychology of religion as existential psychology.) *Zsch. f. Religionspsychol.*,

1933, 6, 1-12.—It has been shown that the old type of psychology is no longer tenable as new points of view and methods come into existence. All the types of psychology, Gestalt, totality, behavioristic, and the like, have been working in parallels, and as long as this is the case no clear picture of the human mind may be procured. The author takes up Bühler's combination method and the work of Heidegger and Nicolai Hartmann. It would be well to remember when defining more exactly the tasks of psychology, that a psychology founded on the comprehension and mastery of the problem of existence in relation to a method and goal, should not be designated merely as totality psychology, but should be considered existential as well. The author shows how the deep stratum of existential foundations may be approached through observation.—A. Römer (Gautzsch bei Leipzig).

3440. Brack, E. *Kasuistische Kritik an hundert in Hamburg bestraften Sexualdelikten*. (A critical study of 100 prisoners convicted of sex offenses in Hamburg.) *Aerzt. sachs. Ztg.*, 1932, 38, 253-261.—Of 100 sex offenders sentenced in Hamburg during the past 3 years, one third were punishable also on other grounds. Most of the group showed in their previous careers a considerable degree of sexual delinquency. The acts for which they were convicted were often merely set off by a "good opportunity," and were carried out in a brutal, deceitful and cunning manner. Only in a minority of cases was the act obviously unpremeditated. Physical examination showed in many instances decidedly hypoplastic genitalia. About half of the female "victims" had had previous sex experiences; those who had not were often degenerates or mental defectives. In the case of boys and youths also, one must distinguish between the innocent and those versed in abnormal practices. Consciously more often than unconsciously, the "victims" themselves become sex offenders.—M. E. Morse (Catonsville, Md.)

3441. Brown, L. G. *Immigration, cultural conflicts and social adjustments*. New York: Longmans, Green, 1933. Pp. xii + 419. \$3.00.—The new immigration, oriental immigration and the chronological stages of the old immigration are discussed with reference to five essentials: composition of the immigration, its causes, the journey to America, distribution of immigrants in the United States, and social interaction and adjustment.—D. Katz (Princeton).

3442. Ciampi, L. *Nueva concepción etiopatogénica y terapéutica de la tartamudez*. (A new conception of the etiology and therapy of stuttering.) *Bol. d. Instit. Psiquiat.*, 1932, 4, 1-26.—The many theories which have been advanced to explain the etiology of stuttering may be classified under three headings, (1) the peripheral, (2) the central, and (3) the psychogenic. The first group of theories stresses disorders of respiration as the cause of this phenomenon. The second group relates stuttering to lesions in the central nervous system in the region of the speech centers. At present, probably the majority of the authors

writing on the general topic advance the third theory, that the phenomenon is a result of a psychological disorder. There is no doubt that some stuttering is psychologically caused. Stuttering and psychological maladjustment may often be found together, but it is difficult to determine which is cause and which is effect. Many stutterers cannot speak without difficulty, but can sing with ease. Many of the phenomena of stuttering are frequently found in children, but these usually pass away with age. Little stuttering appears after the age of eight. The author believes that the persistence of physiological stuttering is related to the malfunctioning of the striate nuclei. Many physiological researches on the mechanism of vocalization lend credence to this view. The treatment of stuttering has been consciously to exercise respiration and articulation so as to avoid stuttering and so perfect a correct habit. Flatau has invented an apparatus for the correction of stuttering, which is worn over the nose and mouth and regulates the breathing rhythm. Respiration by this means is deeper and its rhythm is normalized.—J. W. Nagge (Chicago).

3443. Creutz, W. *Der Einfluss der "erblichen Belastung" und der "Umwelt" bei Kriminellen*. (The influence of "inheritance" and of "environment" in criminality.) *Allg. Zsch. f. Psychiat.*, 1931, 95, 73-106.—Statistics, examples, and numerous references to the literature.—(Courtesy *Bibliographia Eugenica*).

3444. Davis, E. R. *The delinquent girl in Chicago. I. A comparison of four national and racial groups*. *Smith Coll. Stud. Social Work*, 1933, 3, 249-259.—The purpose of this paper, the first of a series of three concerned with certain characteristics of delinquent girls, was to compare girls of four national or racial groups in respect to their age, place of residence, offense, and the court's disposition of the case. Polish, Italian, negro, and native white of native parentage were chosen for study, the cases being representative of the girls of these groups appearing before the court during the years 1928 to 1931.—H. Lange (Boston Psychopathic Hospital).

3445. Dennis, W. *Traits associated with registration and voting*. *J. Abn. & Soc. Psychol.*, 1932, 27, 270-278.—Subjects were secured nearly all of whom were legally qualified to vote, and their social traits and political behavior were studied by an objective method not requiring the knowledge or cooperation of the subjects. The distribution of the political behavior was found to be U-shaped. Most of those who registered, voted in one or both elections. Men of the business and professional classes and men who showed stability of residence and occupation registered and voted reliably more often than the average man. Other traits showed less certain association with the political behavior of men, and the traits studied showed no reliable correlation with registration and voting among the women. With men, the amount of political behavior increased with the increase in the total number of social traits possessed.—C. H. Johnson (Boston Psychopathic Hospital).

3446. Deutsch, J. *Konnorsreuth in ärztlicher Beleuchtung*. (Konnorsreuth in the light of medicine.) Paderborn: Bonifacius Druckerei, 1932. Pp. 80. M. 1.80.—Although Gerlich's book has created a firm foundation for a scientific treatment of the Konnersreuth question, he has not accomplished much from the medical standpoint. In particular, Gerlich has not succeeded in proving that Therese Neumann is not hysterical. Deutsch, on the other hand, keeps free of the over-valuation of the medical position, insofar as he does not assert that that it is all only hysteria.—A. Römer (Gautsach bei Leipzig).

3447. Dorosz, H. *Aesthetik: die späte Wissenschaft*. (Esthetics: the last science.) *Psychol. Rundschau*, 1933, 4, 261-263.—The author attributes to Kant the first analysis of the beautiful. The contributions of several authors to the understanding of the beautiful is commented on, and a comparison is made of the appreciation of the adult and of the child. It is difficult to separate the beauty from the intellectual and ethical values. Intellectual appreciation is primary; only the matured mind realizes the beautiful.—A. B. Herrig (Michigan Central State Teachers College).

3448. Dunlap, K., & Gill, R. S. *The dramatic personality of Jesus*. Baltimore: Williams & Wilkins, 1933. Pp. vi + 186. \$2.00.—A study of Jesus considered as a dramatic personality with especial view to making the personality sound—i.e. self-consistent. The logic of personality is discussed in a first chapter of orientation. The racial and social background of Jesus is described, and a close scrutiny of the gospels is made which develops the fact that Jesus appears therein as at least two quite distinct personalities. About half the book is taken up with these studies in background. Eight chapters follow, each dealing with a single aspect of the personality-training, adult life, ethics, ecclesiastical views, theology, family and state relationships, charlatany, etc. Treatment specifically avoids question of historicity; is sympathetic, but free from pietisms; views Jesus as a man of exceptional parts, but neither wonder-worker nor professional holy man.—R. S. Gill (Baltimore, Md.).

3449. Fairbank, R. E. *Suicide*. *J. Amer. Med. Assn.*, 1932, 98, 1711-1714.—Suicide is most frequently associated with depression, although it has occurred in almost every type of mental illness. The most common personality trait is that termed by Muncie the "rigid" personality. This lack of plasticity in the make-up is one of the factors which influence a patient to suicide. A family history of suicide is found in only a few cases. Most patients give warnings of suicide before the attempt. There is usually a feeling of failure or frustration. The methods used in self-destruction are described and practical problems in the hospital care of suicidal cases are discussed.—D. J. Ingle (Minnesota).

3450. Fligelman, F. *The richness of African negro languages*. Paris: Peyronnet, 1931. Pp. 27. \$0.40.—Reprinted from *Actes du Congrès de l'Institut International des Langues et des Civilisations Afri-*

caines. Using Fulani as an example, the author considers in detail the range of vocabulary, vocabulary stresses, ornamentation, development of vocabulary, uniqueness, and adaptability of the available forms, and concludes that the resources of the African languages are ample to support the impact of European culture. A special subdivision of the problem has been treated by the author in *The Moral Vocabulary of an Unwritten Language*, *Anthropos*, 1932, 27, 213-248.—R. R. Willoughby (Clark).

3451. Freund, H. *Der induktive Vorgang im Stottern und seine therapeutische Verwertung*. (The inductive process in stuttering and its therapeutic use.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 180-192.—The audible act of stuttering does not result in any simple causal way from a mental state. There is, rather, a continuous vicious circle of interactions between the disturbing complex and its somatic expressions. Artificial aids having therapeutic value may serve, in the first place, to take from language certain factors of "suddenness." Such aids are: (1) inner pronunciation "aloud," (2) voiceless lip-speech, (3) developing the voice from whispering sounds, (4) low murmuring, (5) beginning speech with an unformed *e*, either actually or imaginably, (6) beginning speech with an unformed *n* with the mouth closed, or (7) an uninterrupted, flowing manner of speech. In the second place, certain artifices may serve to divert attention from articulation. These include emphasis upon (1) breathing, (2) voice, vocalization and phonation, (3) rhythm, (4) melody, accent and syllables, and (5) connections between words. Third, a positive affective induction may be produced through expression, mimicry, gesture. Courage, for example, is induced by speaking with increased force and voice. Fourth, medical (possibly hypnotic) methods may be used to inhibit certain emotional factors. In the fifth place, when there is inner stuttering due to a pathological direction of attention, therapy must begin by encouraging a methodical mode of speech, even of inner speech.—C. W. Fox (Rochester).

3452. Fuster, J. *Contribución al estudio experimental de la psicología del delincuente. La prueba de la penalización de los delitos*. (Contribution to the experimental psychological study of the delinquent. The criminal penalization test.) *Arch. de neurobiol.*, 1932, 12, 447-520.—Prisons do not reform the offender. A study of the psychological factors in crime is important. The author found approximately 30% of the prison population, tested by the Woodworth questionnaire, to be psychologically abnormal. A number of hypothetical crimes were presented in printed form to 250 convicts, who were to assign what they considered to be just punishment in each case. The prison group differed largely from the accepted legal standards of punishment. The coefficient of correlation between intelligence and assignment of punishment in these cases approached zero.—J. W. Nagge (Chicago).

3453. Galt, W. *Phyloanalysis*. London: Kegan Paul, 1933. Pp. 151. 2/6.—An exposition by a

former student-assistant of Burrow of the group process of social investigation first known as group-analysis. Protocols are presented. The rationale of the procedure is the demonstration of transferences or social images of an irrational ethical sort in all inter-individual contacts.—R. R. Willoughby (Clark).

3454. Garth, T. R. The incidence of color blindness among races. *Science*, 1933, 77, 333-334.—A preliminary report of the results of an investigation to determine the incidence of color blindness among races with the Ishihara test. Results were as follows: (1) for unselected whites an incidence of 8.4% among the males and 1.3% among the females; (2) for unselected Jews an incidence of 4.0% among the males and 0.0% among the females; (3) for full-blood Indians from various tribes an incidence of 2.5% among the males and 0.0% among the females; (4) for full-blood Navaho Indians an incidence of 1.1% among the males and 0.7% among the females; (5) for mixed-blood Indians an incidence of 5.2% among the males and 0.8% among the females; (6) for Mexicans from Old Mexico an incidence of 2.3% among the males and 0.6% among the females; (7) for Mexican immigrants an incidence of 2.5% among the males and 0.9% among the females; (8) for Spanish-Americans an incidence of 3.8% among the males and 0.8% among the females; (9) for southern negroes an incidence of 3.8% among the males and 0.8% among the females; (10) for northern negroes an incidence of 2.8% among the males and 0.0% among the females.—H. W. Karn (Clark).

3455. Gaudet, F. J., Harris, G. S., & St. John, C. W. Individual differences in the sentencing tendencies of judges. *J. Crim. Law & Crimin.*, 1933, 23, 811-818.—The analysis of 7442 sentences given by six different judges in the same county over a period of nine years shows that judges vary considerably among themselves in their sentencing tendencies. The evidence suggests that these tendencies are determined by the judge's environment before he becomes a judge. The authors offer a technique for similar analyses. This particular study covers imprisonment, probation, fines, and suspended sentences.—O. L. Harvey (Boston).

3456. Glassburg, J. A. Medical aspects of speech disorders. *Med. J. & Rec.*, 1932, 136, 376-380.—Stuttering and stammering are minutely analyzed with respect to 3 predisposing, 10 exciting, and 21 aggravating causes, and defective phonation with respect to its 21 central and 24 peripheral causes.—R. C. Givler (Tufts).

3457. Glueck, S. Probation and criminal justice. New York: Macmillan, 1933. (Pp. vi + 344. \$3.00.—This is a symposium on probation by various authorities in the field. Part I: Probation is the suspension, under conditions and for a period imposed by the court, of the imposition or execution of a sentence on a person convicted of a crime and his retention in the community instead of in prison. If rightly administered it substitutes intelligence and humanity for brutality and ignorance in the treatment of offend-

ers. There are many legal problems raised by probation, such as the power to grant probations and the right of the defendant to probation. Part II: The organization of a probation office is described, and there is a chapter on the selection and training of probation officers. (Part III): The chapters entitled *The Trial Judge's Dilemma*, which deal with the problem as to what extent probation shall be used, present two viewpoints, that of the criminologist and that of the judge. Part IV: In discussing the method of administering probation the authors include the use of case history as well as the social worker's technique. The interrelation between psychiatry and criminology is treated largely from a psychoanalytical standpoint. Part V: The last six chapters of the book deal with probation in various countries. There is a discussion of probation in the various states in the United States and a chapter on the growth and future of the Federal probation system. Probation in England is largely carried out by volunteer workers. France has no adult probation system. Belgium has suspended sentence and a juvenile court probation system, and proper commissioners may liberate "abnormal" prisoners immediately after the judicial decision. Germany is planning to initiate a probation system, using existing agencies other than probation officers. Each chapter is separately documented.—L. S. Selling (Institute for Juvenile Research, Chicago).

3458. Götz, B. Ein Beitrag zur grundsätzlichen Kritik der psychoanalytischen Ethnologie. (A contribution to a basic criticism of psychoanalytic ethnology.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 668-676.—A critical discussion of Freud's explanations of certain ethnological facts (exogamy, totemism, vegetation-cults, etc.).—C. W. Fox (Rochester).

3459. Hanley, M. L. Progress of the Linguistic Atlas and plans for the future work of the Dialect Society. *Dialect Notes*, 1931, 6, Part III, 91-98.—R. R. Willoughby (Clark).

3460. Hodgkiss, M. The delinquent girl in Chicago. II. The influence of broken homes and working mothers. *Smith Coll. Stud. Social Work*, 1933, 3, 259-274.—362 delinquent girls were matched for age and nationality or race with the same number of school girls who lived in approximately the same parts of Chicago as did the delinquents. When the broken home was defined as one from which one or both natural parents were absent, it was found that 67% of the delinquents and 45% of the non-delinquents came from such homes. When the broken home was defined as one containing only one parent, the difference between delinquents and non-delinquents was not so great. The mothers of 38% of the delinquent girls, as compared with 29% for the non-delinquents, worked for wages. When broken homes were held constant, however, these differences largely disappeared. Thus it seemed that the broken home was more directly related to delinquency than was the fact that the mother worked.—H. Lange (Boston Psychopathic Hospital).

3461. Holmes, G. The relative legibility of black and white print. *J. Appl. Psychol.*, 1931, 15, 248-251.—An experiment with 20 college students showed 14.7% greater legibility for black print on white background. The method follows earlier work by Kirschmann.—P. G. Corby (Psychological Corporation).

3462. Howells, T. H. A method of secretly obtaining duplicates of writing. *J. Abn. & Soc. Psychol.*, 1932, 27, 334-335.—The general method of procuring a secret impression copy is followed, except that, as a substitute for the waxed paper, a white and therefore invisible coating of powdered lead carbonate is applied to the back of the paper which is written on. On writing, an invisible impression is transferred to a lower sheet. It becomes visible when the sheet is immersed in an atmosphere of hydrogen sulfid gas or in a solution of ammonium polysulfid.—C. H. Johnson (Boston Psychopathic Hospital).

3463. Hunter, E. L. A sociological analysis of certain types of patriotism. New York: Paul Maisel Co., 1932. Pp. 263.—From an analysis of news items, editorials, and letters to editors concerning four specific crisis situations, the author concludes that patriotism is not a broadly functioning loyalty to the totality of country, that loyalties are generally, if not always, held to specific ends, that emotional stressing of fictitious symbols of country is often used as a means of social control in the interests of restricted groups, that patriotism as a generalized scientific term has no validity, and that the term communalism should be used to include loyalties concerned with the general interests of the community.—D. Katz (Princeton).

3464. Jenness, A. The role of discussion in changing opinion regarding a matter of fact. *J. Abn. & Soc. Psychol.*, 1932, 27, 279-296.—When a considerable number of persons entered into discussion of a question of fact, either in a large group, or in several smaller groups, and learned that other individuals differed materially in their opinions regarding the question: (1) the number of individuals who did not alter their opinions was negligible; (2) the accuracy of the average judgment of the individuals was not improved; (3) the number of individuals who increased the accuracy of their estimates was approximately three times the number who did not improve their estimates; (4) the decrease in average of the individual errors was greater than when no opportunity was allowed for discussion; (5) the "typicality" of opinion was increased; (6) with the subjects divided into small groups, the range of opinion in every group was reduced; (7) the average amount of individual change was greater than when no opportunity was allowed for discussion. The average change of opinion was greater among women than among men. The most significant general conclusion is that discussion is not effective in changing opinion unless the individuals who enter into discussion become aware of differences in opinion held by others.—C. H. Johnson (Boston Psychopathic Hospital).

3465. Jochelson, W. History, ethnology and anthropology of the Aleut. Washington: Carnegie Institution, 1933. Pp. v + 91.—Eight chapters, of which the first two comprise the geography of the islands and the contact of their inhabitants with the Russian explorers; Chapter VII presents the physical anthropology, and the remainder treat economic and cultural activities, relationship terms, mythology, and time and space measures. The archeology has been treated in a previous monograph, and the language analysis awaits publication. Bibliography of 195 items, largely Russian.—R. R. Willoughby (Clark).

3466. Köhler, —. Fragebogen zur Erfassung der Gesamtpersönlichkeit. (Personality questionnaire.) *Indus. Psychotechn.*, 1933, 10, 57-60.—Köhler publishes the Chicago Personality Test, which is based on a series of attitude scales, such as those on attitudes toward patriotism, war, communism, God, and the church. The German edition has been prepared by W. C. Trow of the University of Michigan. Köhler publishes the test in order that German readers may become acquainted with it, although he suggests that it will probably attain little popularity, because the German people object to being questioned about such personal matters as are found in these tests.—C. Burri (Chicago).

3467. Lechler, A. Das Rätsel von Konnersreuth in Lichte eines neuen Falles von Stigmatisation. (The puzzle of Konnersreuth in the light of a new case of stigmatization.) Wuppertal-Elberfeld: Buchhandlung der Evangel-Gesellschaft für Deutschland, 1933. Pp. 53. M. 0.90.—Lechler has observed a patient called Elisabeth born in 1902, who felt pains and scars on Good Friday of 1932. The doctor accepted hysterical autosuggestion as the source, and determined to carry out some experimental work in this particular case of the Konnersreuth phenomena. He considers autosuggestion the starting point of all such phenomena.—A. Römer (Gautzsch bei Leipzig).

3468. Lehrer, L. ["Jewishness" in the psyche of the American Jewish child.] *Vivobleter*, 1932, 4, 330-353.—A study by the interview method of what being "Jewish" means to a group of 43 children of both sexes, ranging in age from five to twelve. According to the author appreciation of race membership and race distinctions appears between the ages of four and five. The child uses mainly such signs as language and religious beliefs and practices for making the distinctions.—D. Shakow (Worcester State Hospital).

3469. Michael, J., & Adler, M. J. Crime, law and social science. New York: Harcourt, Brace, 1933. Pp. xxix + 440.—The formal cause of crime is the criminal law. Criminology at the present time is not a science, but it can be made so. There are two kinds of problems in criminology, practical and theoretical. The purpose, relationships, and standards of criminological work are outlined. Studies which have hitherto been carried out dealing with causation of crime and treatment of criminals are worthless. Research in prevention has yielded data which are neither valid nor significant. Crime is inevitable and must be

recognized as such, and its control is dependent upon the administration of the criminal law. So far the findings of criminal law have been insignificant on the quantitative side, but on the qualitative side it is doing something to increase the efficiency of criminal justice. More use of scientific knowledge should be made. An institute for criminology is found to be necessary and is outlined and described.—*L. S. Selling* (Institute for Juvenile Research, Chicago).

3470. Nass, G. *Religiöse Werterlebnisse. Experimentelle Untersuchung zur Psychologie der religiösen Wertung.* (The experience of religious values. Experimental investigations of the psychology of religious evaluation.) *Zsch. f. Religionspsychol.*, 1933, 6, 13-37.—Nass examines the work of Werner Gruhn concerning the experience of religious values, and believes that Gruhn's assertion that the processes of acceptance and rejection treat of the elementary processes of consciousness does not follow from his protocols. Nass performed a new experiment, viz., (1) an analysis of religious valuation in the case of singly presented objects of value, and (2) valuation in the case of the presentation of two objects of value. Gruhn's "feeling of value" is denied.—*A. Römer* (Gautzsch bei Leipzig).

3471. Parsley, M. *The delinquent girl in Chicago. III. The influence of ordinal position and size of family.* *Smith Coll. Stud. Social Work*, 1933, 3, 274-283.—361 delinquent girls were compared with 361 of the same age and nationality who were non-delinquent. The delinquents came from smaller families than did the non-delinquents, and only children were more frequent among them. No significantly larger proportion of the delinquents than of the non-delinquents were oldest in the family, but the proportion of non-delinquents who were the youngest in the family was definitely greater than was found among the delinquents.—*H. Lange* (Boston Psychopathic Hospital).

3472. Paterson, D. G., & Tinker, M. A. *Studies of typographical factors influencing speed of reading.* *J. Appl. Psychol.*, 1931, 15, 241-247.—Chapman-Cook Speed of Reading Tests printed in alternate forms (Form A with black type on white and Form B with white type on black) were used with 280 students to test the effect on speed of reading. Significant differences were found to give a 10.5% advantage in speed of reading in favor of black type on white.—*P. G. Corby* (Psychological Corporation).

3473. Plaut, P. *Psychologische Gutachten in Strafprozessen.* (Psychological opinion in criminal proceedings.) *Beih. z. Zsch. f. angew. Psychol.*, 1932, No. 65. Pp. 160.—In an introduction the author discusses briefly the functions of psychiatry, medicine and psychology in the court and then elaborates the chief problem of the psychologist, which consists of the determination of the trustworthiness of witnesses. This involves a consideration of the concept of trustworthiness and an estimate of the personality of the witness, his character and other features. Twelve cases are discussed in detail as illustrative of the methods pursued in solving such problems. The first

eight cases involve the estimation of the reliability of children as witnesses. In one case the defendant is a child. The remaining three cases involve an evaluation of testimony of adults.—*H. Peak* (Yale).

3474. Plaut, P. *Verwahrlosung und Glaubwürdigkeit.* (Delinquency and the reliability of testimony.) *Krim. Monatsh.*, 1932, 6, 222-225.—The author emphasizes in the beginning the great skepticism with which a child's or adolescent's testimony should be received. Extreme caution is indicated especially in the case of sexual incriminations. In recent times, publicity has often been given to criminal processes in which delinquent child-wards were the chief witnesses. Is their reliability to be discredited on general principles because they are "delinquent"? In the first place, not all these children are really delinquent; and the testimony even of those who are so cannot be rejected a priori. Even a habitually untruthful person does not lie compulsively on every occasion. Only the concrete evidence is to be evaluated, i.e. its inherent probability is decisive. Consequently, the psychology of testimony transcends the mere statement of the facts and their value as evidence, and expands into a much larger and more objective relationship.—*M. E. Morse* (Catonsville, Md.).

3475. Pratt, C. C. *The meaning of music.* New York: McGraw-Hill, 1931. Pp. viii + 253. \$2.00.—The main argument of the present volume is designed "to justify the tenacious hold which formalism has had upon musical theory. The argument goes still further and suggests that even the most extreme formalists, by evading the question of emotion in music, have not made their contentions sweeping enough." The various characteristics of musical structure, although frequently designated by words which are applicable to emotions, are strictly speaking not emotions at all. *Agitation*, e.g., may refer to an emotional state, but the same word may also serve to characterize certain visual and auditory organizations. In the latter case, which is typical of much esthetic experience, no emotion whatever need be involved. The property in question, provided it can be shown to vary with known changes in the stimulus, is to be regarded as intrinsic to the tonal form (in the case of music) in the same sense in which colors and sounds themselves are intrinsic to their objects. Parts I and II develop factual and theoretical arguments to distinguish formal and non-formal aspects of experience (perception vs. meaning). Smaller sections are devoted to the properties of tone and tonal structure, quarter-tone music, Seashore tests, criteria of esthetic value, emotion, etc. Part III offers a psychological interpretation of Schopenhauer's theory of music.—*C. C. Pratt* (Harvard).

3476. Schrijver, J. *De grondslagen der wetenschappelijke graphologie.* V, VIII, & IX. (The bases of scientific graphology. V, VIII, & IX.) *Tijdsch. v. wetenschapp. graphol.*, 1930, 2, No. 2; 1931, 3, No. 1 & 2.—*W. S. Hunter* (Clark).

3477. Seashore, C. E. *Approaches to the science of music and speech.* *Univ. Iowa Stud.: Ser. Aims Prog. Res.*, 1933, No. 41. Pp. 15.—Recent experi-

mental work has demonstrated that music and speech have so many elements in common that the sciences of these two arts become virtually one: (1) in that they both deal with hearing; (2) in that both may be expressed in whole or in part through the voice; and (3) in that they are intimately associated as media of communication and social intercourse. They require practically the same recording apparatus and instruments of precision in measurement. The character of the integration of research work in the science of music and speech in the University of Iowa in recent years is outlined. Equipment includes instruments for the adequate recording of music and speech, for tone analysis and tone production, and physiological instruments. The types of foundation work accomplished are discussed under the headings: the measurement of talent, anthropological measures, the pattern score, norms of performance, esthetic principles, criticism, the quality of voice and instrument, learning in music and speech, genetic studies, speech pathology, illusions, the theory of auditory and vocal mechanisms, and a pattern for scientific treatment of an art. The advantages of the type of integration and specialization suggested by the above facts are discussed, with suggestions for the formal organization of an institute for the science of music and speech.—*B. Wellman* (Iowa).

3478. Seelig, E. *Aus der Statistik der österreichischen Jugendkriminalität*. (From the statistics of Austrian juvenile criminality.) *Vjsch. f. Jugendk.*, 1933, 3, 37-38.—In 1930 15,528 persons were sentenced for crime, 8% of whom were between 14 and 18 years old. Of these 1307 cases of juvenile delinquency 16% involved moral crimes, 67% thefts and 17% other crimes. It is striking that, although moral crimes are apt to pass undetected or be punished out of court, their proportion still nearly equals that of the more serious kinds. In adults only 7% are moral crimes, 47% thefts and 46% the rest. Only 22% of the juvenile offenders (chiefly in the theft group) had previous court records.—*M. Lee* (Chicago).

3479. Seelig, E. *Ergebnisse und Problemstellungen*. (Results and problems.) *Vjsch. f. Jugendk.*, 1933, 3, 31-37.—As a result of investigations during the past five years criminal biology recognizes eight general groups of criminals: professional, influenced, perpetrators of crimes of violence, sex criminals, crisis- and emotional criminals, primitive, and mental-conviction criminals. No single biological structure is common to all or differentiates them from other men. That there are on the whole fewer individuals of pyknic type among them than in the general population means little in regard to the individual. Likewise the generalization that inherited dispositions are not modifiable, while true for the group, is not applicable to the single case. The most valuable studies are those which attempt to determine the dispositions and developmental influences of an individual criminal. If this could be done for enough young criminals and the results could be correlated with their later acts we would obtain a valuable basis for evaluating the significance of early misdemeanors.

Investigators of children's reports as witnesses should link their findings more with what is known of eidetic imagery, fantasy, and suggestibility in children. A freer interchange of ideas between forensic psychology and the psychology of normal youth would benefit both.—*M. Lee* (Chicago).

3480. Senecal, M. *Case-work problems in unemployment relief cases*. *Smith Coll. Stud. Social Work*, 1933, 3, 211-228.—During the winter of 1931-1932 the Philadelphia Family Society and the Bureau of Unemployment cooperated in caring for clients who showed a need for some service in addition to relief. This experiment gave some indication of the value of cooperation between a case-work agency and a public agency and showed some of the difficulties which would arise in referring cases needing and willing to accept case work. It was found that there was almost complete agreement between the two agencies on those problems which had overt manifestations, but that the Family Society worker found in addition many problems involving emotional difficulties.—*H. Lange* (Boston Psychopathic Hospital).

3481. Sherman, M., & Henry, T. R. *Hollow folk*. New York: Crowell, 1933. Pp. viii + 215. \$2.00.—A study of five communities in the Virginia mountain region, of varying levels of culture. After an introductory chapter describing the region and its inhabitants, there are chapters on economics, religion, superstition, desire and worry, education and mentality, music, love, work and play, personality, and government. The material of greatest interest to the psychologist is that on intelligence and personality, in which these functions are considered in relation to the cultural background against which they are evoked.—*R. R. Willoughby* (Clark).

3482. Swift, A. L. *Religion today*. New York: McGraw-Hill, 1933. Pp. xvi + 300. \$2.50.—In a series of lectures which were presented at the New School for Social Research, the history, present status and future of religion are viewed by fourteen leaders of different phases of religious thought. Religion no longer dominates history, but in any time of crisis when a want is felt a cult arises to meet it. In the United States organized religion is inextricably interwoven with the capitalistic system. In "the dark side of religion" is pictured the unhappiness which has been inflicted in its name, and it is suggested that there may be more wisdom and faith in doubt than in most creeds. Psychoanalysis regards the religious structure as an instance of projection of the father ideal. From the standpoint of science it is too uncertain and illusive; the millennium will be reached only when intelligence becomes religion. The middle classes, because of their emphasis upon individualism, are Protestant. Political democracy is not, however, a direct outcome of Protestantism. "The Declaration of Independence exhibits a striking resemblance to and may have been directly influenced by the Catholic political philosophy." Religion is not necessarily doomed to die in a revolutionary society. Capitalism is just as destructive of the religious spirit and institution as communism. The future of religion

depends upon its ability to provide wise and inspiring leaders. Three processes now at work are secularization, ethical autonomy and scientific inquiry; these will evolve the religion of the future, which may be sans churches, creeds and gods.—*M. P. Montgomery* (Faribault, Minn.).

3483. [Various]. The social process. Papers presented at the twenty-sixth annual meeting of the American Sociological Society, held at Washington, D. C., December 28-31, 1932. Chicago: Univ. Chicago Press, 1933. Pp. viii + 226.—In his presidential address Emory S. Bogardus defines "social process" as "any recurring series of social changes" and states that social process on the Pacific Coast has grown out of a never ending invasion and succession of peoples from the main civilizations of the world. It is expressed in conflicts, manifests itself in accommodation which breaks down through excess individualism, leads to emancipation and rises to an acculturation which has as its heart a new cultural society. Read Bain criticizes the concept of social process on the ground that it is a methodological concept rather than a concept of natural science. P. A. Sorokin suggests an application of the principle of limits to problems of causal or functional relationship between societal variables and of the direction of social processes, contending that the theory of limitless perpetual direction of social processes is a pseudo-scientific fallacy. Robert MacIver discusses social causation. Susan M. Kingsbury describes social processes in Russia; Herbert A. Miller similarly treats Asia; E. B. Reuter gives a study of this kind concerning the Chinese in Hawaii; and William Kirk considers Mexico. In the division on social psychology, L. L. Bernard defines the behavioristic viewpoint in social psychology as that of the application of a naturalistic or scientific technique to the study of the processes of the adjustment of individuals to their environment in a social situation. Carl M. Rosenquist, examining excuses given for their crimes by 3240 Texas convicts, finds that the convicts accept the prevailing moral code. E. T. Krueger comes to the conclusion that the explanation of the peculiarities of expression of the religious experiences of the negro lies not in African survivals nor in racial mental and physical differences, but rather in the cultural transmission of elements typical of white religious expression which characterized the revivals in which the negro participated between 1734 and 1860. Howard Woolston reports that appeals to need for security, dogmatic assertion of Marxian philosophy, examples of leaders, indoctrinated schools, censored newspapers, etc., have moved ignorant masses in Soviet Russia to accomplish results in a short time. Ellsworth Faris raises the question whether the face-to-face relation is an essential property of the primary group or merely an accident. The rest of the book is devoted to problems in social research, social biology and population, statistics, and source materials.—*E. H. Kemp* (Clark).

3484. Wunderle, G., & Mager, A. Um Konnersreuth. Neuste religionspsychologische Dokumente.

(Concerning Konnersreuth. Recent psychology of religion documents.) *Abh. z. Phil. u. Psychol. d. Relig.*, 1931, No. 26. Pp. 65. M. 2.—An echo of the Erfurt lecture; on the controversy against Wunderle and Mager with an answer by the authors; Mager's report at the Vienna Congress of religious psychology, 1930; the exchange of letters between Mager and Gerlich.—*A. Römer* (Gautzsch bei Leipzig).

[See also abstracts 3147, 3175, 3179, 3184, 3258, 3308, 3310, 3314, 3325, 3331, 3358, 3391, 3396, 3400, 3416, 3417, 3513, 3516, 3532, 3538, 3540, 3543, 3595.]

INDUSTRIAL AND PERSONNEL PROBLEMS

3485. Anderson, R. N. The disabled man and his vocational adjustment. New York: Institute for the Crippled and Disabled, 1932. Pp. vii + 102.—A study of 4400 white male orthopedic cases. Instead of the usual procedure of sending questionnaires to employers as to possible jobs for different types of handicapped, the individuals themselves were surveyed as to the line of work they were actually following. Data were secured from an employment center for cases where the person had held a job over one month. 35% of the handicaps were due to disease and 30% to public accidents. They were classed in 97 types of disability, grouped under larger headings such as foot, one leg amputated below the knee, etc. The average number of months worked showed little relation to the seriousness of the accident or to stability on the job. The table in the appendix gives all the jobs held by each of the 97 classifications and should prove valuable for the handicapped themselves in making adjustments or for placement agencies and employers. In a specific experiment with a handicapped and a non-handicapped group the former showed somewhat less discharges and voluntary quits.—*H. E. Burt* (Ohio State).

3486. Barkin, S. Economic difficulties of older persons. *Personnel J.*, 1933, 11, 393-400.—Constructive action must be directed toward improving or maintaining the work qualifications of older persons, uprooting age prejudice, effecting a better distribution of employees among jobs, relieving the labor market of the marginal older workers by retirement, and developing a general economic policy which would effect an expansion of work opportunities.—(Courtesy *Personnel J.*).

3487. Beinhoff, W. Technisches Verständnis und Raumvorstellung. (Technical understanding and space thinking.) *Indus. Psychotechn.*, 1933, 10, 16-22.—For selecting engineering apprentices, Beinhoff devised five tests by means of which all degrees of engineering aptitude can be detected. In two of these tests the subject is to draw and describe a solution to a series of pictures illustrating technical problems; in the third, he is to study a picture of a bridge and draw it as it would look from a different angle; in the fourth, he selects a specific object of which he has seen a picture; and in the fifth he studies the side view of a series of three-dimensional drawings, then sketches them as they would appear from above.

The author maintains that by means of these tests technical ability and aptitude for space thinking can be detected at an early age, since correct solutions are independent of complexity.—C. Burri (Chicago).

3488. Bramsfeld, —. **Arbeitsgerichtliche Entscheidung auf Grund eines Eignungsbefundes.** (A court decision on the basis of an aptitude analysis.) *Indus. Psychotechn.*, 1933, 10, 25.—An apprentice in a book-binding business was suddenly discharged from work by his master, although he had a definite service contract. The case came before the court, and on the basis of an aptitude analysis the boy was judged to possess satisfactory qualities for the job, and thus the employer had to keep his contract. This report was made to give an example of the kind of protection employees may obtain from scientific procedures in the industrial world.—C. Burri (Chicago).

3489. Couvé, R. **Der Einzelfall in der Bewährungskontrolle der psychotechnischen Eignungsuntersuchung.** (Individual follow-up analysis of psychotechnically selected workers.) *Indus. Psychotechn.*, 1933, 10, 33-41.—A careful follow-up study of a group of scientifically selected railroad employees brought out the fact that the unfitted ones were eliminated by the aptitude analysis. Those of the selected workers who did not succeed failed because they were physically or emotionally unfit for the job, rather than because of lack of aptitude.—C. Burri (Chicago).

3490. Dolder, E. **Physiologische Untersuchung der Bogenführung auf Streichinstrumenten.** (Physiological investigation of style of bowing on stringed instruments.) *Arbeitsphysiol.*, 1931, 5, 67-99.—(*Biol. Abst.* VI: 22052).

3491. Feller, F. M. **Ein Beispiel für seelische Gegenströmungen beim Einkauf.** (An example of sales resistance.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 50-62.—The public dislikes clocks sometimes because of unpleasant experiences with them, such as being awakened or having to wait for an appointed time. One often expresses this dislike by purchasing a cheaper clock than was intended. On the other hand, a purchaser may like a clock because it is an unconscious sex symbol.—H. E. Burtt (Ohio State).

3492. Feller, F. M. **Ein neuer Beitrag zur Psychodynamik der Reklame.** (A new contribution to the psychodynamics of advertising.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 44-50.—In package design one should take account of the unconscious sex symbolism in such things as the tube for the tooth paste or the wide-mouthed jar for the facial cream. Such symbolism influences the customer's preferences.—H. E. Burtt (Ohio State).

3493. Feller, F. M. **Kasuistisches Material zur Psychodynamik der Reklame.** (Casuistic material in the psychodynamics of advertising.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 9-16.—Interpretation of a poster showing a girl biting a cookie. Men wish they were the cookie and hence fulfil this wish by not purchasing that brand of cookie. Women, on the other hand, identify themselves with the girl in the

poster in attracting the sex interest of men, and thus react favorably toward that brand of cookie.—H. E. Burtt (Ohio State).

3494. Feller, F. M. **Über die Blickrichtungen.** (The direction of glance.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 21-23.—Criticism of an advertising cut of a messenger boy running from left to right and carrying a large placard with a message. The direction of running will interfere with the reader's eyes in moving back to the beginning of the second line.—H. E. Burtt (Ohio State).

3495. Feller, F. M. **Über falsche Suggestion.** (False suggestion.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 6-9.—An example of contradictory suggestion in an advertisement suggesting cash purchase with a picture showing a hand tightly grasping a pocketbook.—H. E. Burtt (Ohio State).

3496. Feller, F. M. **Über Lust und Verlust in der Werbewirkung.** (Pleasure and desire in selling.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 40-43.—Beauty alone in an advertisement or a package may lead to a passive pleasure and no sale. The arousal of imagery, perhaps unconscious, may produce desire for the commodity.—H. E. Burtt (Ohio State).

3497. Fiorentini, R. **Analisi del costo di produzione e dei sistemi salariali nella organizzazione scientifica del lavoro.** (Analysis of the cost of production and the wage systems in scientific organization of labor.) Rome: S. S. D. L., 1932. Pp. 240.—Using the quantitative method, the author seeks to analyze the cost of production under all its aspects and to assemble and judge according to a single principle the various forms of wages which have been proposed or practiced in the past. The mathematical analysis, which is the basic method used in this study, is supplemented by technical, economic, and social analyses. The author shows how the wage system should be correlated with the organization and type of factory and enterprise under consideration. He discusses the psychological and social aspects of the problem in so far as intensive work is concerned, whether performed under a fixed wage scale or under contract. He finds that industrial fatigue, excessive strain, and the reduction of the worker's output with increasing age are the consequences of fatiguing work, consequences which can be avoided with the use of psychological controls and a study of the worker's psycho-dynamic curve. Next, the author discusses the technical and economic problems of scientifically organized labor, making a comparative examination of rational forms of wage determination, that is, wages determined according to a continuously varying scale or to a discontinuous scale, the latter form having been proposed by Geffer. The author prefers the former type, however. He considers that the community wage is the most fundamental form of remuneration, in that it guarantees a correspondence between wages and the normal exigencies of life, the possibilities of production, and the output of work.—R. Calabresi (Rome).

3498. Giese, F. **Behaviorismus und industrielle Psychotechnik.** (Behaviorism and industrial psy-

chotechnology.) *Indus. Psychotechn.*, 1933, 10, 11-16.—Giese contrasts behaviorism and functionalism, and points out how a behavioristic approach in psychotechnology may be of greater use for practical purposes in industry than what he calls Wundt's functionalism. A behavioristic approach in industry promises much valuable data for vocational guidance, personnel work, advertising, and accident prevention.—C. Burri (Chicago).

3499. Hackl, K. *Untersuchungen in der Landwirtschaft.* (Investigations in agriculture.) *Psychotechn. Zsch.*, 1932, 7, 153-161.—Among many farmers in Germany there is a belief that only country-born people can endure farm life, and therefore they frequently employ foreign help, while many factory workers from their own country are unemployed. In order to determine whether industrial men could be satisfactorily employed for agricultural work the author undertook a systematic investigation of the problem. It was found that with proper training and improved living and housing conditions the city-born person could perform agricultural work as satisfactorily as the native farmer.—C. Burri (Chicago).

3500. Hartenstein, E. *Der Einfluss der Stimmung auf die Leistung.* (The influence of moods on efficiency.) *Indus. Psychotechn.*, 1933, 10, 22-25.—The introspective reports of eight subjects of their moods during working hours, at intervals from two to fourteen days over a span of four months, was compared with their actual efficiency on those days, on five different tests: reaction time, attention, hand dexterity, free association, and dynamometer measurements. The results from these tests were also compared with weather charts of the same days. There was great individual variability in the effect of moods on efficiency. Some of the subjects showed much greater variation in moods than others, and those with widely varying moods showed also greater variation in efficiency. There is a slight indication that the subjects with even moods were more efficient than those with large oscillations. On an average there was no convincing evidence for or against the idea that weather conditions influence efficiency.—C. Burri (Chicago).

3501. Kupke, E. *Mensch und Arbeitsrhythmus.* (Men and work rhythms.) *Indus. Psychotechn.*, 1933, 10, 42-48.—Every rhythm in men's activities indicates their psychological adjustment to the work in progress. A determining factor in bringing about a work rhythm is the *Einstellung* to the task and a definite effort to reach a goal. Definite work rhythms lower initial inhibiting effects and those of boredom. With proper rhythmic action and with positive *Einstellung* to the task, work becomes easy and the need for great volitional effort is decreased.—C. Burri (Chicago).

3502. Link, H. C. A new method of testing advertising effectiveness. *Harvard Bus. Rev.*, 1933, 11, 165-177.—Analysis of tests of housewives' ability to recall the brand name and product advertised from questions concerning the advertising message indicate

that "the most critical factor in the effectiveness of advertising, and the one which dwarfs all others in comparison, is the character of the central theme or the advertising message—whether that message be in bold type or light, in a headline which is long or short, in a beautifully colored page or merely in black and white, etc." If an advertising message "has a definite connection with the habits, interests, emotional patterns, and experience of a sufficient number of people, it will make an impression in spite of the physical factors of form and media used in presenting it." Data from interviews with 1578 housewives was secured through the coöperation of 15 psychologists in these tests.—P. G. Corby (Psychological Corporation).

3503. Macrae, A. *Talent and temperament. The psychology of vocational guidance.* New York: Appleton, 1933. Pp. xii + 211.—The author is head of the vocational guidance division of the British National Institute of Industrial Psychology. The problem of vocational maladjustment is stated, typical cases described and the errors made by parents noted. The historical account of the measurement of intelligence gives special emphasis to Spearman's contribution and is followed by some notes on his tetrad equation and theory of cognition. Tests of special abilities, including dexterity and musical, are described. The writer has not had much success with the Stenquist test. With reference to temperament and character such approaches are mentioned as morphology, instinct, and psychoanalysis, and greater stress is laid upon the interview. Suggestions for improvement of the interview include definite topics, blanks for self-analysis, and a study of interests. Greater reliability is found for characteristics that are especially emotional, such as timidity or sociability. Parents' opinions as to intelligence or temperament are of doubtful value, but if they give specific illustrations or describe factors in the case history the data are satisfactory. The teacher's greatest contribution is in the judgment of social and moral qualities. The importance of the medical examination, especially as negative guidance, is stressed. We need a measure of general physical efficiency analogous to general intelligence. After studying the individual it is necessary to study the job. This may be done by consulting handbooks, but it is desirable to list both the characteristics necessary and their amount. The psychologists may observe the work, interview the workers, give tests where possible and follow up those tested subsequently. In actual guidance considerable stress is laid upon the intelligence hierarchy and upon beginning the interview with a survey of the individual's interests as to working with papers, things, or people. Experiments are described in which guidance was given and subsequent follow-up made as to the success of the guidance. As to the future, it is recommended that guidance be organized under educational authority and that the counsellor should receive special training. A number of typical cases are cited illustrating the various points raised.—H. E. Burr (Ohio State).

3504. Matejka, F. *Organization und Wirtschaftlichkeit der Psychotechnik im Eisenwerk Witkowitz.* (Organization and economy as a result of psychotechnics in the Witkowitz iron works.) *Indus. Psychotechn.*, 1933, 10, 1-10.—The author discusses the importance of a psychotechnical laboratory for research and employment selection. His opinion is that the elimination of unnecessary turn-over resulting from inadequate selection of employees or apprentices more than pays for the costs of maintaining a psychotechnical laboratory.—C. Burri (Chicago).

3505. Menger, C. *The significance of vocational choices of school children and college students.* New York: Author, 1932. Pp. xi + 177.—Vocational choice is distinguished from real vocational interest. Irrationality of the choice is studied, that is, its approximation to intelligence, social level, and agreement with opportunities, or scope of the occupation. 19,000 school children of all grades responded to a questionnaire as to "What vocation do you expect to follow?" Age, sex, and grade were noted. The vocations were classified according to the 415 in Kitson's list. The average number of occupations chosen by boys in elementary grades was 70, high school 70, and college 37. For the girls the corresponding figures were 35, 39, and 40. In other words, education widens the horizon for the women but not for the men. The girls tend to pick jobs in which the social and intellectual status agree, while with the boys this is not necessarily so. The boys mentioned only about two fifths of the vocations in Kitson's list, and there were only 26 occupations named by more than 1%. Engineering and aviation were mentioned by over 10%. Engineering, medicine, and law seemed rather popular throughout all the grades. For women, similar results were found as to the limited range of vocations mentioned. Teaching and stenography were the only ones with greater than 10% frequency. Teaching seemed popular throughout the grades. Retarded youths choose a somewhat greater number of vocations than accelerated youths. There was not much difference in rural and urban groups, except for a higher frequency of farming and nursing in the former. Too many boys choose professions and too few agricultural and mining and domestic pursuits. Too many of the girls, likewise, choose a profession, as judged by the relative numbers in the professions. The raw data are given in detail in the appendix.—H. E. Burt (Ohio State).

3506. Pond, M. *Occupation, intelligence, age and schooling: their relationship and distribution in a factory population.* *Personnel J.*, 1933, 11, 373-382.—The distribution of intelligence test scores, age, and schooling of a factory population of 9,075 men, divided into 44 occupational groups, shows great overlapping in these measures from occupation to occupation. Nevertheless, the averages and inter-quartile ranges in both test scores and schooling correlate better than .74 with an occupational ranking based upon estimates of the degree of intelligence required. Test scores and schooling are practically

normal in distribution; age is strongly skewed toward youth.—(Courtesy *Personnel J.*)

3507. Rupp, H. *Ueber Arbeitsschnelligkeit und Arbeitsgüte.* (Concerning speed and accuracy of work.) *Psychotechn. Zsch.*, 1932, 7, 161-175.—This is the last of a series of articles on the relationship of speed and accuracy in work which have appeared in this journal during the period 1930-1932. In this article the author reports a series of experimental studies on the effect of forced speed and accuracy. Groups of ten to fourteen subjects performed simple tasks, such as tracing squared paper at different rates of speed, or placing crosses or lines in parts of complex patterns requiring different degrees of accuracy. In a third test seven subjects wrote a verse of a familiar poem, varying the degree of speed and accuracy at command. The results from these controlled speed and accuracy procedures were then compared with normal performance. It was found that by changing the speed of tracing squares the accuracy changes logarithmically and not proportionally. There seems to be an optimal speed which gives greatest accuracy, and increasing or decreasing that speed impairs accuracy. By enforcing various degrees of increased accuracy, speed was decreased, but only up to a certain point, after which it was no longer affected. In writing the verse, where the subjects interchanged normal with fast, slow or good writing, the average time required to finish the verse varied greatly. However, it was the lowest for writing normally. The quality of the handwriting was best for writing normally and fast; while the various degrees of emphasis on accuracy had no influence on the quality of the handwriting. In addition to the experimental work, Rupp reviews some studies by Plottner and Windmüller in which the results from various tests when carried out under accuracy or speed instructions were correlated. Some of these tests showed a positive, others a negative relationship between accuracy and speed. Rupp also found that there were many individual differences in ability to do accurate as against fast work, as well as many variations from task to task; all possible combinations were found, such as accurate and fast, fast but not accurate and vice versa, or one kind of combination for one situation but another one for another.—C. Burri (Chicago).

3508. Strang, R. *Does it pay to change positions in the field of education?* *Personnel J.*, 1933, 11, 401-405.—Data from vocational history blanks as to the educational and vocational experiences of a group of 546 women in various educational positions show that: (1) the average length of stay in a position was approximately three and a half years; (2) the mean number of change made during their entire professional careers was 4.6; (3) the correlation between length of stay and salary was $.17 \pm .03$, and this decreased to .05 when the age factor was held constant. As in Kitson's study of a group of office workers, no evidence was obtained that a person who persists in a given position will receive a higher salary than one who changes positions more frequently

Whether it is financially advantageous to avoid being a "rolling stone" depends upon so many factors that generalization is impossible.—(Courtesy Personnel J.)

3509. Valentiner, —. Bericht. (A report.) *Psychotechn. Zsch.*, 1932, 7, 188.—The practice of selecting apprentices by means of aptitude tests has proved to be of great benefit to boys and girls who could not finish their public school education. Hitherto these people had difficulty in finding jobs, but now, if they qualify in terms of an aptitude analysis, they are hired regardless of their previous schooling. A statistical report from a follow-up study of two groups of apprentices with incomplete public school training shows that they are, in general, successful in their work. Their ratings show that while none of them could be considered excellent, neither were there any actual failures. A comparison of 43 such workers with a group who had completed their grammar-school education gives the following percentages in each class who passed with a given rating:

	Education	
	complete	incomplete
Excellent	1%	0%
Very good	20%	11%
Good	48%	33%
Fairly good	23%	44%
Average	8%	12%
Below average	0%	0%

—C. Burri (Chicago).

3510. Vidoni, G. L'esame psicotecnico nei guidatori di tranvai, di macchine (ferrovia), di autoveicoli. (Psychotechnical examinations for drivers of street cars, locomotives, and automobiles.) *Liguria med.*, 1932, No. 11, 348-349.—The author describes an apparatus used for studying movements made by drivers of vehicles. He believes in the usefulness of a biotypological evaluation of personality and of the psychiatric examination.—R. Calabresi (Rome).

3511. Waters, R. H. A study of customer attitude. *J. Appl. Psychol.*, 1931, 15, 252-258.—The Stoy Customer Attitude Blank used in rating merchants by students and professors was found to show distinguishing personality characteristics of successful and unsuccessful retail dealers.—P. G. Corby (Psychological Corporation).

3512. Winterstein, A. Unbewusste Erotik in der Reklame. (Unconscious eroticism in advertising.) *Int. Zsch. f. Werbepsychol.*, 1932, 3, 24-28.—Attitudes toward advertisements or commodities may often be traced to unconscious sex symbolism. For example, dislike of margarine in contrast with butter is traceable to the trauma of being weaned on a cold, hard, non-living bottle.—H. E. Burt (Ohio State).

[See also abstracts 3165, 3233, 3234, 3236, 3249, 3251, 3327, 3515, 3584, 3585, 3587, 3599.]

CHILDHOOD AND ADOLESCENCE

3513. Aschaffenburg, G. Die Zeitung in der Psychologie der Jugendlichen. (The newspaper in the psychology of adolescence.) Bonn: Röhrscheid, 1931. Pp. 12. RM. 0.60.—R. R. Willoughby (Clark).

3514. Beebe, E. L. Motor learning of children in hand and eye coordination with introduction of prismatic deflection. *Child Development*, 1933, 4, 6-25.—"A study has been made of motor learning in hand and eye motor coordination. For this purpose an apparatus for controlled aiming using prism deflection has been used. An extended learning program with specific stimulus variations has been carried on using eight children" between four and five years of age, with a "mean age 4 years 7 months. Results are as follows: (1) Means of a deflected series as compared with a series using normal vision show increased right horizontal error and simultaneously decreased perpendicular error for the angular deflection series. (2) Progress in a series alternating normal vision and deflection is apparently toward a constant horizontal error approximately equal to right and to left. . . . (3) Final undeflected trials show fairly rapid recovery from effects of deflection. . . . (4) Individual differences are marked and highly variable." 8 references.—F. D. McTeer (Detroit City College).

3515. Bracken, H. v. Die Anpassung der Jugendlichen an das Erwerbsleben. (The adaptation of adolescents to economic life.) Langensalza: Beltz, 1931. Pp. 16.—R. R. Willoughby (Clark).

3516. Bridges, K. M. B. A study of social development in early infancy. *Child Development*, 1933, 4, 36-49.—62 infants, ranging in age from three weeks to two years, were observed almost daily in the Montreal Foundling and Baby Hospital for a period of three months. "Detailed records were kept of the children's behavior reactions and of the situations in which these occurred; special attention being paid to responses to social or emotion-producing situations." The author's findings may be summarized as follows: "Social development begins in relation to the adult. At first the adult comes to be associated with the satisfaction of various needs as a part of these agreeable experiences. . . . Beginning as early as four or five months a conflict slowly arises between the desire for social attention and a dislike for the consequent interference with individual liberty. . . . Social interest in other children begins a few weeks later than interest in adults. It grows slowly up to nine months of age, then more rapidly. . . . Nine- and ten-month-old babies pat and explore the environment, including themselves, rather independently of one another. . . . But by fourteen months a child begins to show preferences. . . . Mob behavior can be observed in a group of children between fifteen and twenty-four months of age. The children are more or less orderly, disciplined, and friendly with one another in the presence of an accepted authority. They become disorderly, refractory, and quarrelsome in the absence of this personal authority." 4 references.—W. McTeer (Detroit City College).

3517. Bridges, K. M. B. Emotional development in early infancy. *Child Development*, 1932, 3, 324-341.—"The emotional behavior of 62 infants in the Montreal Foundling and Baby Hospital was carefully observed and recorded daily over a period of three or

four months. . . . The babies under observation were in separate wards more or less according to age. . . . An older group of children between fifteen and twenty-four months of age played together in the nursery." The findings are given in a descriptive style and are organized with regard to the author's viewpoint, which may be expressed as follows: "Development in the emotional behavior of the young child comprises three main classes of change. (1) The earliest emotional reactions are very general and poorly organized responses to one or two general types of situations. (2) As weeks and months go by the responses take on more definite form in relation to more specific situations. . . . Coincident with the partial isolation of certain responses is a combining of the simpler reactions within the unit responses and the formation of bonds of association between these emotional syndromes and detailed aspects of the provoking situation. . . . (3) Different situations come to have emotional significance for the growing child and subsequently provoke emotional responses. Thus a gradual substitution takes place in the situations which prompt the emotion." 4 references.—*W. McTeer* (Detroit City College).

3518. **Cattell, R. B.** *Psychologist or medical man?* *Schoolmaster*, 1932 (Sept.).—Guidance clinics and school psychological services in Britain are in danger of uncritically imitating the American practice of dividing the work between a psychologist and a psychiatrist, a practice which reflects the undeveloped state of psychology in the early days of its application. This sundering of the child mind between two specialists, in addition to being reminiscent of an undeveloped state of the subject, is inimical to research progress and wasteful in practice owing to time consumed in conferences. Because the psychiatrist obtains only a smattering of psychology, and that after his libido has become attached to the subject of medicine (much of which is irrelevant), psychiatry has been a surprisingly stagnant subject, with scarcely one scientifically established principle; whereas psychology, borne onward by a relatively small group of trained psychologists, has made rapid progress and is now turning successfully to the experimental study of temperament, character, and abnormal conditions. Both for the sake of progress in the subject and for effectiveness in routine applied psychology it is highly desirable that the universities should plan to qualify a true psychological practitioner, trained primarily in all branches of mental science and having sufficient knowledge of relevant aspects of medicine to be able to link up easily with a medical man working on the purely medical side.—*R. B. Cattell* (Dartington School, England).

3519. **Chicago Association for Child Study and Parent Education.** *Developing attitudes in children.* Chicago: Univ. of Chicago Press, 1933. Pp. vii + 156. \$1.50.—A collection of addresses and round table discussions constituting the Proceedings of the Mid-West Conference of the Chicago Association for Child Study and Parent Education, March, 1932. Contents: How can ethical attitudes be taught?

Hugh Hartshorne; Child training for international intelligence, Harry Elmer Barnes; The conflict between scholarizing and socializing the student, Glenn Frank; Training for racial bigotry, Melville J. Herskovits; The effect of motion pictures on the social attitudes of children, Ruth C. Peterson; Developing vocational attitudes, Robert C. Woellner; Parental influence in creating religious attitudes in children, Norris L. Tibbetts; Training for citizenship, Carleton Washburne; Attitudes in international relations, Harry Gideonse; index.—*R. M. Stogdill* (Ohio State).

3520. **Dennis, W.** *Two new responses of infants.* *Child Development*, 1932, 3, 362-363.—Brief descriptions are given of the posture of nursing and the posture of defecation as observed in 17 very young infants and 5 prematures.—*F. D. McTeer* (Detroit City College).

3521. **Gildea, H., & Macoubrey, C.** *Factors affecting the constancy of the intelligence quotients of problem children.* *Smith Coll. Stud. Social Work*, 1933, 3, 229-247.—Among 431 white patients of the Institute for Juvenile Research, Chicago, whose intelligence was tested at least twice, there were found 77 whose IQ changed more than 10 points. 73 of these were matched for age, sex, and IQ on the initial test with a group whose IQ changed 5 points or less. Degree of cooperation, attitude toward the examiner, and speed in the test showed no relationship to variability in IQ, while degree of reflectiveness and attention were slightly more favorable in the group whose IQ advanced. Improvement in physical condition, parental attitudes, and symptomatic behavior also is definitely associated with variability in IQ.—*H. Lange* (Boston Psychopathic Hospital).

3522. **Goodenough, F. L.** *Expression of the emotions in a blind-deaf child.* *J. Abn. & Soc. Psychol.*, 1932, 27, 328-333.—In the emotional behavior of the little girl described, whose experience has been devoid of opportunities to observe the behavior of others except in the very limited and crude ways permitted by the cutaneous senses alone, a strong resemblance to the well-known descriptions of Darwin and Spencer may be seen. This suggests that the primary forms of expressive behavior are determined by native factors.—*C. H. Johnson* (Boston Psychopathic Hospital).

3523. **Grandprey, M. B.** *Range of variability in weight and height of children under six years of age.* *Child Development*, 1933, 4, 26-35.—Using the data presented in R. M. Woodbury's *Statures and Weights of Children Under Six Years of Age* and following a plan suggested by H. K. Faber, height-age, weight-age, and height-weight curves are given for both male and female preschool children. These curves give not only the average or 50 percentile, but give also the "spread" as marked off by the 10, 25, 75 and 90 percentiles. 4 references.—*W. McTeer* (Detroit City College).

3524. **Grigsby, O. J.** *An experimental study of the development of concepts of relationship in preschool children as evidenced by their expressive ability.* *J. Exper. Educ.*, 1932, 1, 144-162.—The

purpose of this investigation was to discover and analyze the trend of development in the verbalized concepts of pre-school children pertaining to relations of time, space, number, part-whole, discordance, and cause. The related factors of mental age and vocabulary extent were also studied. 83 children, 2 to 6 years of age, from the pre-school laboratories of the Iowa Child Welfare Research Station were used as subjects in this study. Six series of questions, each dealing with one of the relations mentioned, were asked each child individually. Most of the conversation was recorded on dictaphone records by an electric recording machine and was later transcribed. The balance was recorded by the experimenter on forms prepared for the purpose. In general, the results indicated that each series of questions, dealing with a particular relation, yields gradations of maturity affected more by mental age than by chronological age.—H. W. Karn (Clark).

3525. Hanson, R. L. An investigation of children's use of money. *Child Development*, 1933, 4, 50-54.—On the basis of a questionnaire survey of 202 elementary and high school children of Cedar Falls, Iowa, the author generalizes that: "(1) No significant relationship seems to exist between the children having money to control and the occupation of the parents. (2) No relationship between the age of the child and the granting of an allowance is evident. (3) No relationship exists between the amount of allowance received and the educational progress of the child. . . . (4) 23% of the boys and 44% of the girls have allowances." A further study of 90 children resulted in the following generalizations: (1) Little opportunity is provided for experiencing borrowing or lending under parental supervision. (2) More provision is made for boys than for girls to learn investment principles. (3) More boys than girls are provided with earning opportunities. (4) Only one-half of these children are encouraged to budget their incomes. (5) Parents of the children studied offer but little opportunity for the child to assume responsibility in clothing purchases. The girls share in this experience less often than do the boys. (6) The parents do not make a general practice of increasing responsibility as the child's income increases. (7) Boys are provided with more opportunities for learning the use of money than are girls." No references.—W. McTeer (Detroit City College).

3526. Hartmann-Karplus, D. Untersuchungen über Juckempfindung, Kratzen und Pilomotorreflex im Säuglingsalter. (Investigations on itch sensation and scratch and pilomotor reflexes in nursing children.) *Jahrb. f. Kinderhk.*, 1931, 132, 140-158.—(*Biol. Abst.* VI: 22024).

3527. Heinrich, —. Das Schulkind von heute. (The school child of today.) *Fortsch. Med.*, 1932, 50, 1106-1108.—Heinrich reports various experiences as a city school physician. First, there is an impression—although it is not verified statistically—of a deterioration in the pupils' "nervous condition," while the crisis in nutritional conditions is by no means ended. In one of the school clinics attached

to a consultation center for individual psychology, the most frequent complaints were disturbances of sleep, headache, bed-wetting, nail-biting, unsocial conduct, and above all, anxiety. In the treatment of stuttering, better results apparently were obtained in special classes for speech defects than through psychotherapy. The chief causes of childhood neuroses lie in family situations—the desperate mood of the parents, due to unemployment; their irritability; the short night's rest of the children; also the demands made on their interest by earning money, whereby their school records suffer greatly. Heinrich reports two cases in which the rôle played by discouragement was impressive.—M. E. Morse (Catonsville, Md.).

3528. Heuyer, M., Dublineau, M., & Morgenstern, —. *Reverie delirante chez un enfant.* (Delusional imagery in a child.) *Ann. méd.-psychol.*, 1932, 14, 153-159.—Many factors come out of an observation of this child: pedagogic regression, affective reduction, disordered behavior, imaginative activity in which peculiarity, disinterest, and systematic opposition played a part. Upon examination it seems that there can be no doubt of the conviction of the child as to the reality of the imagery which he experiences. The importance of jealousy resulting from the birth of a younger brother is suggested as a basis for the construction of the compensatory mechanism. Syphilitic inheritance is certain and there is a possibility of encephalitis.—E. H. Kemp (Clark).

3529. Jenny, W. A. Popularity and personality in the summer camp. A study of group acceptance of the individual and the concomitant behavior of boys 9 to 19. *Univ. Pitt. Bull.*, 1933, 29, 133-140.—By means of a number of tests and attitude scales it was shown among other things that the most acceptable boys are well-adjusted, resourceful, and capable of leadership. Non-acceptable boys tend to be problem cases. These boys also manifest antisocial behavior. The relation between IQ, MA, and CA and acceptability was not clear.—N. L. Munn (Pittsburgh).

3530. Kahle, M. Beziehungen weiblicher Fürsorgezöglinge zur Familie. (The family relationships of girls in protective homes.) *Beih. z. Zsch. f. angew. Psychol.*, 1931, No. 60. Pp. 188.—Data are presented from a study of the family relationships of 200 girls between 14 and 21 years of age who were in the care of institutions for under-privileged children. Part A contains an analysis of the structure of the girl's family prior to her coming to the institution and a classification of the various kinds of family groups: the family incomplete through death or illegitimacy; the substitute family (step-parents or foster parents); families broken by drinking, sexual relations between father and daughter, or divorce; and the complete family with more or less normal relationships. Of the girls studied only 8% proved to have had satisfactory family ties. Part B deals with the relations of the girl to her family during her sojourn in the institution, and Part C discusses briefly the reactions of the girl on leaving the institution to go into her own or other homes.—H. Peak (Yale).

3531. Labberton, M. *Frühes Erleben. Blicke in die Kindesseele.* (Early experiences. Insight into the child-soul.) (Trans. by M. Schmarow-van Rossem & C. Veith.) Leipzig: Teubner, 1932. Pp. 66. RM. 2.—These nine short stories about children give an insight into the child's world. His disillusionment when he tries to share his joy with adults, and is pushed aside by them because they do not understand; grief over the beloved doll which breaks in pieces, and the stormy turning from the new, "strange" doll-child; disillusionment over the father who has been worshiped, and then does something disappointing—these and similar episodes are depicted in a manner which will make many a teacher recall his own childhood.—*M. E. Morse* (Catonsville, Md.).

3532. Linden, W. *Das Generationsproblem im Spiegel der Literatur.* (The problem of the generations in the mirror of literature.) *Dtsch. Schule*, 1933, 37, 132-137.—Every age is mirrored in its literature. The writings of the eighteenth century show little of the conflict of the generations of our day. The emancipation of youth is traced from the classic and romantic periods through the age of realism into the more recent naturalism with quotations from authors who represent in their writings these various periods.—*A. B. Herrig* (Michigan Central State Teachers College).

3533. Mascheck, F. *Das Generationsproblem und die Pädagogik.* (The problem of the generations and pedagogy.) *Dtsch. Schule*, 1933, 37, 101-121.—The problem of the relationship of youth to the adult generation is viewed from three standpoints: (1) The biological; the exuberance of youth is biological, the conservatism of maturity is due to physical slowing up. (2) The historical; each age has its distinct environmental background to which its youth becomes adapted; conflicts arise with the backgrounds represented by the parent generation. (3) The actual viewpoint of the day; the author reviews the influences that have entered into the viewpoint of the day and attempts to show the part that must be played by educators in helping youth to find itself in a changing world.—*A. B. Herrig* (Michigan Central State Teachers College).

3534. McGraw, M. B. *From reflex to muscular control in the assumption of an erect posture and ambulation in the human infant.* *Child Development*, 1932, 3, 291-297.—This study presents a detailed analysis of the development of sitting and walking in infants, emphasizing particularly the lack of accurate definition in the standardized tests of infant intelligence. "The following interpretations and conclusions seem warranted: (1) Certain types of activities appear to function on a reflex level before they become a part of a controlled muscular pattern. . . . (2) There is no evidence of a sudden emergence of a new totally integrated pattern. . . . (3) Growth in the assumption of an erect posture and walking is extraordinarily gradual. . . . In acquiring any new reaction pattern the infant experiences a degree of uncertainty or dyssynergia. A decrease in this

dyssynergic aspect associated with a particular reaction pattern and an increase in the precision . . . of the performance is unquestionably a type of learning. Such learning is not, however, of the trial and error, or analysis and selection, variety. . . . Infants tend to make a partial response rather than a false one and 'learning' consists of a completion of the reaction pattern rather than selection and elimination of responses. (4) Standardized tests and scales for measuring infant development can be of little practical value until these phases in the development of a single trait have been minutely analyzed and determined." 14 pictures and 5 references.—*W. McTeer* (Detroit City College).

3535. Miles, K. A. *Sustained visual fixation of preschool children to a delayed stimulus.* *Child Development*, 1933, 4, 1-5.—The problem in this experiment was to determine by observation the length of time during which preschool children will maintain visual fixation on a closed box while waiting for it to open and disclose a desired object. "The application of this test to 58 preschool children between the ages of 3½-6½ years suggest that visual attention is brief at the third and fourth year levels [8 sec.] and increases markedly at five and six years. [16-28 sec.] Sex differences are negligible, the differences within a single sex being much greater than the difference between sexes. The length of visual attention is apparently unrelated to intelligence, but is closely related to age."—*F. D. McTeer* (Detroit City College).

3536. Mudroch, R. *Das Stiefkind.* (The stepchild.) *4 Versamml. f. Kinderforsch.*, Bratislava, 1932, 216-228.—Among the 988 children examined in the out-patient department of the Prague Pedological Institute, 36.4% came from families of disturbed structure, i.e., they were stepchildren, illegitimates or orphans. While 50% of the children who had both parents were brought to the clinic on account of intellectual difficulties, the majority of those with only one parent were referred because of delinquency. Among the latter, 64% were boys, which shows that girls adjust better to the new family situation. The frequency of difficulties shows a peak around 8 and again between 11 and 14 years. In 57% of all cases, the difficulties lay in the failure of upbringing due to the family situation. Mudroch discusses the hard position of the stepmother, who must reckon with the ready-made prejudice against herself. He also reports the case of a 14-year-old illegitimate child who had developed a psychic flagellatism or propensity to torment himself.—*M. E. Morse* (Catonsville, Md.).

3537. Neustadt-Steinfeld, E. *Ueber Psychosen im frühen Kindesalter.* (Psychoses in early childhood.) *Arch. f. Psychiat.*, 1932, 97, 222-237.—The author reports two cases of psychotic disturbances in childhood. The relationship of childhood psychoses to the corresponding phase of psychological development is close, on account of the common possibilities of expression. The fact must always be emphasized that under the uniformity of symptoms is hidden a

multiplicity of basic conditions. In all cases, active psychotherapy is urgently demanded.—*M. E. Morse* (Catonsville, Md.).

3538. Noffsinger, F. R., & Louttit, C. M. The development of logical selection in word meaning among school children. *Child Development*, 1932, 3, 317-323.—From an analysis of the choices made in Section II, Schedule D, of the Indiana Mental Survey Test by 200 boys and girls at each age from nine to seventeen, 100 at ages eight and eighteen and 50 nineteen-year-olds, "it would appear that the development of logical relation of concepts passes through a stage of self-reference in children from eight to ten or eleven years of age. Furthermore, the development of vocabulary is an important factor in the process of concept formation." The test used consisted of a list of ten key words each of which was followed by a group of related words from which the child was to select the two words which were essentially related to the key word.—*F. D. McTeer* (Detroit City College).

3539. Nystrom, G. H. A study of fifty home libraries with special reference to their function in child development. [In] *Researches in Parent Education I. Univ. Iowa Stud.: Stud. Child Welfare*, 1932, 6, Part V, 153-194.—Fifty mothers were interviewed in their homes and permission secured to examine the books in the home library. Records were made of the total number of books, magazines and newspapers, and lists made of the children's books and magazines and child study books and magazines. A measuring criterion for evaluating the children's books was developed. Scores were given for literary merit, personality orientation value and interest value. There was an increase in the size and quality of the home library with rise in socioeconomic status and with educational status of the parents. There were no differences according to nationality or number of children. The children's books were low in literary value but quite high in interest value. The books, magazines and newspapers most frequently found in the homes are listed.—*B. Wellman* (Iowa).

3540. Och, J. Die Ursachen der sittlichen Abwegigkeit der Kinder an der Peripherie der Grossstädte. (The causes of juvenile delinquency in the suburbs of large cities.) *4 Versamml. f. Kinderforsch.*, Bratislava, 1932, 228-232.—Every human being reacts to a situation in the same way as those with whom he lives. Children become delinquent because their environment has not developed a sentiment for the moral norms which prevail today. Children should be removed by law from such surroundings, and in the cases in which the environment cannot be improved or the parents cannot provide for the children, a limitation of the population should be made possible.—*M. E. Morse* (Catonsville, Md.).

3541. Ojemann, R. H., & Phillips, E. B. Fiction as a guide to child development. *Child Development*, 1932, 3, 342-345.—On the basis of a detailed critical analysis, the authors conclude that Lichtenberger's *Trott and His Little Sister* is not to be recommended

as a source of principles of child psychology. Furthermore, "before any novel is recommended as a source of principles of child psychology it should be carefully analyzed to determine to what extent the characters are real children and to what extent the author uses them for his convenience to create the story or to express a generalization which may hold true in adult life, but which does not necessarily take cognizance of child development."—*F. D. McTeer* (Detroit City College).

3542. Olson, W. C., & Wilkinson, M. M. The measurement of child behavior in terms of its social stimulus value. *J. Exper. Educ.*, 1932, 1, 92-95.—This paper is primarily concerned with the discussion and demonstration of an approach to child behavior study. "Briefly, the hypothesis is that the behavior of Child A in its stimulus value for Associate B may be obtained by recording the actions of B by a third person, Observer C. Individuals in a group are thus differentiated primarily in terms of actual responses of an associate or associates to it, rather than in terms of their own behavior or by the impressions of others." The definition of the behavior observed was "such marked restlessness or inattention that the teacher feels the need of speaking to the child or recalling his attention by direct word, look, or gesture." In this study, 200 samples of behavior, each 5 minutes in length, were used for measurement purposes. The authors report that the method gives scores which are both reliable and constant, which reveal wide individual and sex differences, and which correlate significantly with the average of 2 teachers' judgments of related types of behavior.—*H. W. Karn* (Clark).

3543. Parten, M. B. Social participation among pre-school children. *J. Abn. & Soc. Psychol.*, 1932, 27, 243-269.—The social participation of 40 nursery-school children was analyzed. The spontaneous play groups occurring during the free-play hour were observed by a one-minute sampling and the social behavior of each child was recorded. Social participation was classified under: unoccupied; solitary play; onlooker; parallel group activity; associative group play; and cooperative group play. Unoccupied behavior was observed in only five children, while all children engaged in solitary play. All but two children were observed in onlooker situations, and all but one in associative play groups. Parallel activity occurred more often than any other; two-thirds of the children played in this manner over 33% of the time. Cooperative play occupied from 1 to 57% of the observations. Correlation of social participation was made with several other factors: (1) social participation is dependent to a large extent upon the age of children, (2) there is a slight relationship between intelligence quotients and the degree of social participation of individuals (.26), (3) nursery-school experience correlated with social participation scores .12.—*C. H. Johnson* (Boston Psychopathic Hospital).

3544. Poyntz, L. The efficacy of visual and auditory distractions for preschool children. *Child Development*, 1933, 4, 55-72.—"The 40 children in

the Nursery School and 7 in the Kindergarten of the University of Minnesota who served as subjects had an age range of from 26 to 66 months with a median age of 43.5 months. Their IQ's ranged from 90 to 131 with a median IQ of 106." The task used in this experiment was that of placing pegs in a pegboard. The auditory distractions consisted of a metronome and a toy victrola; the visual distractions were a light which flashed off and on and a group of toys. The author concludes: "(1) Visual distractions have a much more disturbing effect on the performance of a simple motor task which involves visual attention, than do auditory distractions" in the measures obtained in this experiment. "(2) So-called auditory distractions actually facilitate these preschool children in the performance of the task. . . . (3) The susceptibility to distraction as studied in this experiment is a trait independent of sex, chronological age, IQ, or socio-economic status. (4) The effect of the four distractions not only varies from child to child but also from time to time in a single child. (5) The standard task method is adequate for determining the various distractions; but it is not adaptable to the study of individual differences in distractibility." 16 references.—W. McTeer (Detroit City College).

3545. Rauth, J. E., & Furfey, P. H. The maturational factor in adolescent conduct. *Child Development*, 1933, 4, 90-93.—"A small but constant and significant relationship between Developmental Age and physical measurements was demonstrated in a group of 43 adolescent boys. No such relationship was discoverable in a group of 70 pre-adolescent boys. The data suggest that the characteristic adolescent maturity of conduct is actually due to the presence of the sex hormone. Adolescent behavior is therefore another example of 'maturational' behavior."—W. McTeer (Detroit City College).

3546. Remer, L. L. Handicaps of school entrants: a study of traits which handicap children entering kindergarten and first grade. [In] *Researches in Parent Education I. Univ. Iowa Stud.: Stud. Child Welfare*, 1932, 6, Part VI, 197-207.—19 teachers coöperated with the author in rating children entering school on handicaps which caused the children considerable difficulty. 734 children were rated. The handicaps were divided into personality, intellectual, and language difficulties. 20% of the children were handicapped in some way for school progress. The personality handicaps varied from one to twenty-one per child, with a mean of five. Those difficulties which were found most often were lack in adjustment to new situations, lack in initiative and self-confidence, dependence upon adults, shyness and sensitiveness, undependability and laziness, lack in will power and persistence, unwillingness to face a situation, and tendency to be wilful. Personality handicaps which were rarely encountered were cowardliness, worrying, dishonesty, untruthfulness, fear, bullying, whining, carelessness, silly actions to attract attention, improper toilet habits, and untidy appearance. One out of every eight school entrants was handicapped intellectually. More boys than girls were rated as

putting forth little effort. This was the only trait in which sex differences were noticeable. One out of every nine children possessed some form of serious language handicap.—B. Wellman (Iowa).

3547. Roberts, K. E. Learning in preschool and orphanage children: an experimental study of ability to solve different situations according to the same plan. *Univ. Iowa Stud.: Stud. Child Welfare*, 1933, 7, No. 3. Pp. 94.—The purpose of the investigation was to study the process by which young children learn the solution of an initial situation and apply the solution in a subsequent series of similar but at the same time different situations, all of which could be solved according to the same plan. The apparatus consisted of six multiple-choice problem boxes. Each box was divided into six compartments, each compartment in turn being divided into an upper and lower section by means of a hinged platform. In the upper section, which had a glass front, were placed aeroplanes or boxes, and in the doors of the lower section were inserted cards of different colors or sizes or having different forms. Nine situations—three based on color, three on form and three on size—were presented to each child. In each box the one correct door carried a mark of identity with, or matched, the object in the compartment above it. The subjects were 21 four-year-old children enrolled in the preschool laboratories of the Iowa Child Welfare Research Station and 19 children from four to seven years of age in the Iowa Soldiers' Orphans' Home. Learning ability was more closely related to mental age than to chronological age. The application of the solution was not as much a function of mental age as was the learning of the solution. The ability to apply the solution was not dependent upon the number of trials required for learning it. Mere perception on the part of the child of the similarity between the door and the object to be obtained was not sufficient to bring about the solution of the situation to be learned. Nor were the experimenter's hints, which really told the child the solution, any assurance that learning would be completed at once. Children's responses to direct questioning may or may not yield reliable information concerning their ability to solve problems. Failure to respond verbally should not be taken as inability to respond, nor should failure to verbalize in a learning or problem-solving situation be considered as indicative of inferior ability in learning or problem solving of the type represented by this experiment. A child may give no evidence of ability to generalize verbally, whereas his performance in problem situations may show that he can generalize correctly.—B. Wellman (Iowa).

3548. Rostohar, M. Die Entwicklung der Allgemeinbegriffe beim Kinde. (The development of general ideas in the child.) *4 Versamml. f. Kinderforsch.*, Bratislava, 1932, 265-268.—To the pre-school child, the designations "dog," "bird," etc., never mean the general idea, but a concrete object. Only after further experience does the child learn that the meaning of a word used in a general sense does not apply to all the concrete perceptions of the object.

Hence the idea of common kinds and classifications does not arise through abstraction from a series of concrete objects.—*M. E. Morse* (Catonsville, Md.).

3549. Sander, F. *Kinder- und Jugendpsychologie als genetische Ganzheitspsychologie*. (Child and youth psychology as genetic whole-psychology.) *Vjsch. f. Jugendk.*, 1933, 3, 1-14.—The exclusive interest of the 19th century in states of consciousness compounded out of simple sensations directly observed by introspection precluded any study of children. Scientific child psychology had its beginning therefore in the work of Preyer, a physician and father. Present-day whole-psychology, fundamentally opposed to the earlier atomistic and mechanistic principles, recognizes the primacy of the whole experience over any of its parts. For example, feelings are not regarded as elements or accompaniments of sensations, but qualities of the total experience. Such a psychology has always a genetic viewpoint, and because of its recognition of an underlying dynamic constant is capable of dealing with problems of personality. The child reacts to a total stimulation. For him the object is not a thing in itself, but is colored by the motor component in his complete experience of it. This is allied to primitive ideas of animism and magical control of outside events. It is also characteristic of the young child's affective life to deal with and interchange opposite extremes, as exemplified by fairy stories which reflect a related primitive unity. From the 7th to the 13th year this affective experience-whole is increasingly broken up into parts. The interest of the child centers in dissection, analysis, and reconstruction of new wholes of a more rational nature. Later the young man feels the need for a new psychic unity. Eros is a longing for wholeness and *Gestalt*. Self-isolation leads to a desire for an understanding "you" who will complete the social unit. Development takes place in such a series of phases rather than in a continuous change. A rich field of similar investigation awaits development in child psychology.—*M. Lee* (Chicago).

3550. Schmeing, K. *Das Minus-Ideal als jugend-psychologisches Motiv*. (The negative ideal as a psychological motive in youth.) *Vjsch. f. Jugendk.*, 1933, 3, 14-30.—Although the positive ideal is stressed in education, there is usually present in a child's mind a contrasted negative ideal which is to be avoided. The individual sees himself as midway between the two concepts and is influenced by both. Many cases are cited by the author as illustrations. This innate primitive tendency to polarization of good and bad is especially marked in the stages of development called child-puberty (3-6), youth-puberty (12-16), and adult-puberty (after 20). During these periods there will be many instances of violent dislikes and unreserved devotion. How far the negative ideal may be utilized pedagogically depends on the subject. In sex questions it can not be used, but in some ethical and esthetic questions both extremes may well be discussed. In social questions the negative ideal will inevitably be developed through current news reports of crime. When both plus and

minus ideals are given, the developing individual turns spontaneously toward the positive one.—*M. Lee* (Chicago).

3551. Scoe, H. F. *Bladder control in infancy and early childhood*. *Univ. Iowa Stud.: Stud. Child Welfare*, 1933, 5, No. 4. Pp. 83.—The general aim of the study was to investigate the psychological factors affecting the establishment of bladder control in infants and young children. The sources of data were a questionnaire group of 172 infants and young children, an undirected group of 32 infants, a laboratory group of 17 male infants, a preliminary training group of 6 infants, and a main training group of 36 infants. The important findings were made from the training group. The findings from the other groups were used to supplement and corroborate those of the training group. Bladder control was defined as the ability of the child to void when placed on the chamber and the ability to retain the urine during the interval. The criterion used to determine success on the first ability was the plus-minus ratio or that between successes and failures on the toilet, and the criterion on the second was the plus-wet ratio or that between successes on the toilet and voidings in clothes. The former is a measure of a more immature or elementary process, and the latter measures a more advanced process in bladder control. Systematic training resulted in an initial period of rapid progress, for about six weeks, and a later period of slight progress. Infants responded to systematic training at all age levels. Teething altered the level of control temporarily. A significant loss occurred during the week of eruption and a significant gain was made following the week of eruption. No sex differences were found on either the initial or maintenance phases when age and starting point were held constant. Boys were more variable. With age controlled boys voided somewhat more often than girls. Wide individual differences were found in frequency of voiding. Boys were started later than girls in training for bladder control. Frequency of voiding was inversely related to temperature. A difference in mean temperature of 8.4 degrees significantly altered the frequency of five subjects under controlled conditions. Recommendations for a program for establishing bladder control are given.—*B. Wellman* (Iowa).

3552. Scott, G. D. *Biophysiological appetizers in the nutrition of the child*. *Med. J. & Rec.*, 1932, 136, 367-371; 400-403; 449-451; 496-498.—Hunger, thirst, and normal fatigue are all appetizers to be judiciously used; their value to the organism has recently been obscured by "hormone-worship."—*R. C. Givler* (Tufts).

3553. Shallit, R. *The dramatic play of ten nursery school children*. *Child Development*, 1932, 3, 359-362.—"Diary records were taken on 4 boys and 6 girls enrolled in the University of Minnesota Institute of Child Welfare. Each child was followed for three 20-minute periods on each of two days. His speech was recorded verbatim, and as much of the speech and activities of his playmates as could be taken down." When these records were analyzed it

was found that there were large individual differences in the amount of dramatic play. Five of the children in the group were responsible for 83% of such play. Most imaginative play was concerned with making things, playing house, impersonating animals, and going places.—*F. D. McTeer* (Detroit City College).

3554. Updegraff, R. Preferential handedness in young children. *J. Exper. Educ.*, 1932, 1, 134-139.—The problem of this study was that of devising a reliable and valid method for the study and determination of preferential handedness in children from 2 to 6 years of age. There were 2 approaches—by controlled observation and test. Upon the basis of preliminary observation a battery of 11 tests was constructed, presented twice to 75 children, and revised. The revised test of proved reliability was validated by means of a reliable controlled observational technique. 40 children were observed for at least 2 hours each; each of these children received the revised test battery twice. Observations indicated that most of the children showed a preference for the use of one hand or the other. Usually the preference was exhibited throughout all activities, although degree of preference varied. The revised battery yielded a reliability of .97 for the determination of handedness in 105 children. Preference as shown by both test and observation agreed in 36 of 40 cases. In an additional case preference was shown in neither observation nor test. 19 cases for which observations were less complete showed agreement of preference in test and observation. There were no apparent age differences.—*H. W. Karn* (Clark).

3555. Volovik, A. B. K izucheniyu dinamiki kompleksnoi deyatel'nosti bolshikh polusharii u detei. (Dynamics of the complex activity of the cerebrum in children.) *Russkii fiziol. zh. Sechenova*, 1931, 14, 235-241.—Motor and secretory (saliva) conditioned reflexes were established on an 11-year-old boy of average physical and mental development. As complex stimuli were used three acoustic components (bubbling; metronome, 120 vibrations per min.; and an electric bell) following each other for 10 sec., when sweets were given to the boy. An optic stimulus was also used, viz., red, green, and blue electric lamps successively. The magnitude of the conditioned secretory reflex was determined by the number of drops of saliva secreted for 30 sec. of the complex stimulus. Formation of conditioned reflexes to complex stimuli obeyed the same laws which apply to simple conditioned reflexes. The activity of the cerebral hemispheres obeyed the "law of strength," a stronger complex stimulus producing a greater secretory reflex than a weaker one. When a complex stimulus consisting of ingredients of different strengths was used, the conditioned reflex was formed faster on the stronger component. Exclusion of one or more ingredients of the optic complex stimulus decreased the conditioned salivary secretion. A conditioned inhibition formed for one of the ingredients of the optic complex stimulus had an inhibitory effect on the whole complex. Complete inhibition of the optic complex occurred whether the conditioned

inhibition preceded or accompanied the application of the optic complex. Inhibition preceding the acoustic complex had no effect on it, while "direct" (simultaneous) inhibition had a less marked effect than in the case of the optic complex. A change of positions between two ingredients (e.g., one preceding instead of following the other) of an acoustic complex led to a lowering and later to a complete inhibition of the secretory reflex. This inhibition was unstable, the modified complex soon restoring the properties of a conditioned stimulus. (German summary.)—(*Biol. Abst.* VII: 3241).

3556. Waring, E. B. A guide for studying the personality of a young child. *J. Exper. Educ.*, 1932, 1, 96-109.—A report of the results of several years' effort to develop a method of studying personality from records of observation with two main points of reference, the situation and the response. The final result is a tentative tool called a Guide for Studying the Personality of a Young Child. The guide assumes that at all times a child is reacting to a total situation, but that at different times different elements are prepotent in influencing his response. The tendency to be selective in his response is the basis for analysis in terms of situation. The tendency to respond to any aspect of the situation differently at different times is the basis for the analysis in terms of response. The authors indicate some uses of the guide in studying behavior for current guidance of children, for teaching students and parents, and for research. Evidence is offered as to the validity and reliability of the guide as a measure of personality at work.—*H. W. Karn* (Clark).

[See also abstracts 3131, 3235, 3308, 3380, 3405, 3411, 3420, 3424, 3437, 3444, 3460, 3471, 3478, 3505, 3589, 3599.]

EDUCATIONAL PSYCHOLOGY

3557. Acheson, E. M. The effective dean of women. Chicago: Univ. of Chicago Press, 1932. Pp. 223. \$3.00.—*R. R. Willoughby* (Clark).

3558. Boltunov, A. P. Printsipi i sistema prof-orientatsii v shkole. (The principles and the system of vocational orientation in school.) *Psikhotekhnika v shkole*, 1932. Pp. 154.—*E. Hanfmann* (Worcester State Hospital).

3559. Bondy, C. Betrachtungen zum Lüneberger Fürsorgeerziehungsprozess. (Observations on the Lüneberg method in charitable education.) Berlin: Heymann, 1931. Pp. 23. M. 0.50.—*R. R. Willoughby* (Clark).

3560. Breed, F. S. Classroom organization and management. Yonkers: World Book, 1933. Pp. xvi + 472. \$2.00.—The problems of classroom organization and management are discussed from the point of view provided by educational measurements. The importance of individual differences is stressed in the criticism of miscellaneous classifications of pupils and in the arguments for homogeneous grouping. A knowledge of the fundamentals of measurement is necessary for understanding the present-day

emphasis on individual instruction, for the construction of new type examinations, and for comprehending the recent reforms in methods of marking. The chapters on educational measurement pave the way for the understanding of the evaluation of the acceleration principle of promotion and the principle of enrichment of the curriculum. In modern curriculum making, Herbert Spencer's social theory still holds sway. The technique of schedule making for both elementary schools and high schools is presented in a practical manner. Chapters XV and XVI are devoted to school bookkeeping and to the organizing of routine activities of the schoolroom. The final chapter stresses the importance of character education in the schools as well as treating in detail of practical methods of habit training. A bibliography is appended at the end of each chapter.—*H. S. Clapp* (Hawthorne, N. Y.)

3561. Carrol, H. A. A method of measuring prose appreciation. *English J.*, 1933, 22, 184-189.—A discussion of the basis for the validity of the method described.—*S. M. Stoke* (Mount Holyoke).

3562. Flemming, C. W. The role of the teacher in pupil adjustment. *Teach. Coll. Rec.*, 1933, 34, 560-568.—Suggestions as to how the teacher may aid in pupil adjustment.—*J. M. Stalnaker* (Chicago).

3563. Freistadt-Lederer, A. Die Wege der modernen Erziehung. (The methods of modern education.) *Psychol. Rundschau*, 1933, 4, 263-267.—An evaluation of the contributions of Montessori, Freud, Adler, Wyneken, and Otto to the newer ideals of education. The doctrine of freedom is the keynote to the new theory of child-training, giving rise to the activity type of school. The teacher forsakes a ready-made program of training for a readiness for an ever-changing adaptability to meet the situation.—*A. B. Herrig* (Michigan Central State Teachers College).

3564. Harter, R. S., & Smeltzer, C. H. Self-instructional manual in handling test scores. New York: Holt, 1933. Pp. 58.—A self-instructional manual designed primarily to give students in educational psychology, education, or educational measurements a working knowledge of the elementary fundamentals of statistics as applied to test scores and educational experimentation. Formal classroom time in teaching the subject matter of statistics is not required when students use this manual. The subject matter is non-technical, general discussions are at a minimum, and emphasis is placed upon the practical applications to specific types of school problems. Perforated answer strips on the edge of each page which can be torn off and handed in facilitate correction of problems. Three forms of a test, of equal difficulty, accompany each manual. The subject matter presented includes measures of central tendency and percentiles, measures of variability, norms, measures of relationship, and graphs.—*C. C. Neet* (Clark).

3565. Hildreth, G. The use of scholastic aptitude tests in progressive schools. *Prog. Educ.*, 1932, 9; 1933, 10, 35-40.—*R. R. Willoughby* (Clark).

3566. Jacobson, P. B. Two experiments with work-type reading exercises in ninth grade. *Univ. Iowa Stud.: Stud. Educ.*, 1933, 8, No. 5. Pp. 85.—The effect of work-type reading exercises given to ninth grade pupils on their reading comprehension score, achievement in general science, and general achievement in all academic subjects was studied. Two experiments were carried out. In the first experiment four ninth grade classes in English were divided into two groups equated at the beginning of the experiment on reading comprehension, intelligence, and knowledge of general science as shown by standardized tests. The experimental group was given for sixty days drills to develop work-type reading skills and instruction and practice in English mechanics. The control group was given only the latter, but for a period comparable to the total period for the experimental group. At the end of the experiment the subjects were tested on the Iowa silent reading test, Thorndike-McCall reading scale, Ruch-Popenoe general science test, and an additional general science test. The experimental group made larger gains on the first three measures, but the difference was not statistically significant except on the Thorndike-McCall scale. The difference on the general science test was in favor of the control group, but it was not significant. There was practically no difference between the groups in knowledge of English mechanics. The grade point average of the control group was higher, but not significantly so. On a retest eighteen weeks after the end of the experiment the control group was superior in each case. The data did not show conclusively whether or not the experimental procedure had been of aid or hindrance. In the second experiment work-type reading drills were given in general science to an experimental group, while the control group did their work without these drills. The differences were largely in favor of the experimental group. The experimental procedure was of greater benefit to poor than to good initial readers. These data "warrant the conclusion that giving reading instruction in the field in which the content is to be mastered is superior to giving it in another subject matter field and expecting the ability to transfer to a content field."—*B. Wellman* (Iowa).

3567. Kilby, M. A study of factors contributing to English scholarship at Asbury College. *Kentucky Person. Bull.*, 1933, No. 7.—The relative importance of the following factors in determining scholarship in the case of 76 freshmen registered in freshman English was investigated; intelligence, previous preparation in English, knowledge of the fundamentals of English, improvement in this knowledge, and time spent in studying English. Standard tests were used in determining the first four factors, and average time spent per week for the last factor. For one group the multiple correlation coefficient for all the factors was .69. Comparing this with the simple correlation coefficients showed that the intelligence factor was most important, the other four factors measuring very little in English grades not already measured by intelligence tests. This coefficient also indicated

that there are many other factors making for English grades not included in this study. Results from different groups under different instructors showed that the same factors do not have the same relative importance in a given course with different instructors.—*P. Seckler (Clark)*.

3568. Lehman, H. C. A class experiment in the transfer of training. *J. Appl. Psychol.*, 1933, 17, 77-82.—A simple experiment based on 8 problems is described. Only 4% of college students utilize their knowledge of algebra in solving arithmetical problems presented in the form of equations.—*R. S. Schultz (Psychological Corporation)*.

3569. Malis, G. J. Profkonsultatsiya v shkole. (Vocational guidance in school.) *Psikhotekhnika v shkole*, 1931. Pp. 70.—*E. Hanfmann (Worcester State Hospital)*.

3570. Mathews, C. O. Attitudes toward academic honesty. *Ment. Health Observ.*, 1933, 1, 3.—The extent and nature of different standards and concepts in respect to academic honesty were studied in a survey of the opinions of 500 students and 50 faculty members of a liberal arts college by use of a personal opinion blank containing descriptions of concrete situations involving honesty in examinations and preparation of assignments. It was found that, on the whole, fewer faculty members than students are able to justify questionable procedures; that men are more lenient than women; that the two upper classes are less strict than the lower classes; and that both faculty and students justify doubtful procedures more frequently in preparation of assignments than in taking examinations. The question of rationalization as a means of condoning actions not justified by high moral standards and the effects of the college environment in fostering such a system is raised.—*P. Seckler (Clark)*.

3571. Meltzer, H., & Bailor, E. M. Extent and nature of students' knowledge of psychology before and after the first course. *J. Appl. Psychol.*, 1931, 15, 279-293.—Tests of 57 students' knowledge of psychology before taking an elementary course and after completion of it show definite gains in acquiring knowledge. Detailed analyses of differences in facts learned are presented. Worcester's conclusions as to the amount of tautological teaching in higher education do not agree with results for this group.—*P. G. Corby (Psychological Corporation)*.

3572. Patry, F. L. Methodology in the formulation of mental hygiene case studies. Albany: Univ. State of New York Press, 1933. Pp. 3 + 73.—Since the vast majority of maladjusted school children are handled by the classroom teacher, it is essential that she train herself to be psychiatric and mental-hygiene minded in order to be able to interpret behavior and aid in the readjustment of these unfortunate ones. Obviously she can do effective work only in so far as she has a plan of procedure by means of which she can collect, analyze, and evaluate the essential facts, which should then be arranged systematically, ready for use by any reliable agency available. The author here gives an outline for case

study, and accompanies it by suggestions to the teacher. Several detailed case reports are given by way of illustrating the use of the outline. Four pages of bibliography are appended.—*E. V. Brill (Malone, N. Y.)*.

3573. Pressey, S. L., & Campbell, P. The causes of children's errors in capitalization: a psychological analysis. *English J.*, 1933, 22, 197-201.—The article is based upon individual interviews with the pupils in two ninth-grade classes. They were asked to explain why they had made their particular errors. "Most errors were found not simply due to 'carelessness' or 'chance'; in most cases the child had reasons for his error—sometimes his error was more logical than the 'correct' usage."—*S. M. Stoke (Mount Holyoke)*.

3574. Reifenrath, H. Vergleichende Intelligenzprüfungen in Handels- und Gewerbeschulen. (Comparisons of intelligence-test results from students in commercial and trade schools.) *Indus. Psychotechn.*, 1933, 10, 48-52.—The results from intelligence tests of several thousand students from several different kinds of vocational and trade schools for engineers, electricians, bookkeepers, sales-people, dressmakers, statisticians, and administrators, show a considerable relationship between intelligence scores and the type of schooling of the particular group of subjects. However, no positive correlation between general and specific (technical and commercial) intelligence was found.—*C. Burri (Chicago)*.

3575. Ryan, G. An experiment in class instruction versus independent study at college level. Baltimore: Author, 1932. Pp. 42.—The subjects were 40 sophomores, 30 juniors and 40 seniors. The sophomores studied English literature, the juniors English literature and school administration, and the seniors history of education and school administration. They were "paired by rank on the Thurstone Psychological Examination, 1930 edition." Half of the students studied the first six weeks of the semester by the "individual" plan, while their peers on the test studied by regular classroom procedures. The second six weeks of the semester the procedures were reversed, and the third six weeks all students studied by the recitation method. Study materials and examinations were apparently identical for experimental and control groups. In general, those who attended class made higher achievement scores than those who studied independently, though it appears that they spent considerably more time doing so. The author estimates that, with time equated, independent study was advantageous in all years and with all levels of ability. Counseling required less of the instructors' time than did mass instruction.—*M. B. Jensen (Chicago)*.

3576. Schmidt-Lamberg, H. Die Erziehung des kranken Kindes in der Anstalt. (The education of the sick child in the institution.) *Psychol. u. Med.*, 1932, 4, 331-335.—The author points out that methods of educating and bringing up children have changed very much in this century, and that all treatment should be related to practical life, according

to the present point of view. He shows wherein the sick child may differ from the healthy one, and recommends that education be suited to the needs and capabilities of the child. He also states that children have a sense of the comedy of a situation, and jollity, and that these capacities should be utilized. There should be agreement between the program of education and that of cure.—D. S. Oberlin (Bryn Mawr).

3577. Schweizer-Stettler, C. *Neue Ziele und neue Wege in der Erziehung.* (New aims and new methods in education.) *Psychol. Rundschau*, 1933, 4, 246-251.—Self-expression and harmonious development stand as the highest aim of each individual. Changing ideals for the accomplishment of this purpose are commented on; the differing analyses of Freud, Adler and Jung are discussed, each aiming at a better self-understanding. The child is a product of the totality of its hereditary tendencies and its environmental influences.—A. B. Herrig (Michigan Central State Teachers College).

3578. Shu, H. C. *The recent changes of Chinese educational thought.* *New China Fortnightly* (Chinese), 1933, 1, 97-110.—The author points out that during the last five years (1928 to 1932 inclusive) Chinese educational thought has, as a result of reacting and adapting to changing situations, undergone the following four changes: (1) from the sacred notion of education to an instrumentalism of education; (2) from administrative education to productive education; (3) from urban education to rural and mass education; and (4) a revival of nationalistic education. He cites various official and magazine publications to illustrate his analyses and conclusions. A bibliography of 46 titles.—C.-F. Wu (Nat. Res. Instit. Psychol., China).

3579. Signoret, L. *A la recherche d'une méthode d'éducation.* (In search of a method of education.) Paris: Nathan, 1933. Pp. 255. Fr. 15.—The author seeks to retrace the life of pedagogical problems, in order to discover their philosophy, by considering these problems not in an abstract way, but in their historical setting, which seems to him to be an essential factor. He tries to combine in one review of the whole the history of problems and doctrines, in order to show faithfully the movement and the life of thought. Treating the general problems of education, he reviews the problems presented by different schools of pedagogy; the subject of education; the psychology of the child, and in particular mental development according to Claparède; methods of education; and above all, the active method of W. James; and the qualities of the educator. He then brings out the problem of moral education in teaching, and seeks a new method of moral education, treating the question of principles, of the formation of the will, and the mind in its relation to morals. With respect to moral technique, he discounts the ideas of Piaget and speaks of the autonomy of students, according to Ferrière.—Math. H. Piéron (Sorbonne).

3580. Taft, J. *Rank's contribution to education.* *Prog. Educ.*, 1932, 9, 495-498.—R. R. Willoughby (Clark).

3581. Teagarden, L. *Clinical identification of the prospective non-reader.* *Child Development*, 1932, 3, 346-358.—This report is concerned with the results of a year's clinical study of 50 first-grade children, about half of whom had previously attended kindergarten. At the beginning of the year each child was given tests to determine the extent to which he tended to reverse and confuse symbols; he was required to match printed characters and to copy nonsense symbols. Standardized psychological tests were administered (Stanford-Binet, Seguin-Goddard Form-board) and extensive tests were made of hand and eye preferences. The order in which the child named 25 simple figures from a card where they were arranged in 5 lines and 5 columns was used as a test of his direction and organization in reacting to symbols. Near the end of the school year the Gates Primary Reading Tests were given to all of the children. The results indicate that both intelligence and tendency to reversal are important factors in learning to read. These two factors are independent variables. "Other things being equal, the child with the better intelligence makes more rapid progress in reading. Other things being equal, the child with less tendency to reversal makes the better progress in reading. . . . The tendency to reversal is not abnormal or pathological, but occurs in every degree from total absence to severity." 13 references.—F. D. McTeer (Detroit City College).

3582. Thomas, C. S. *Language and thinking in the secondary school.* *English J.*, 1933, 22, 277-283.—The author proposes to improve clarity of expression by improving clarity of thinking. The latter is to be improved by (1) solving practical situations, (2) testing the logic and consistency of selected passages, and (3) organizing composition material. Examples of teaching devices for exercising these functions are given.—S. M. Stoke (Mount Holyoke).

3583. Whitmer, C. A. *A study of the scholastic progress of college probationers.* *J. Appl. Psychol.*, 1933, 17, 39-49.—The scholastic achievement of 81 freshmen entering the University of Pittsburgh in 1928 was compared to the achievement of 81 freshmen who entered in 1927. The 1928 group were assisted in a probationers' class in their study habits and adjustment to the university curricula, while the 1927 group received no such assistance. Both groups were equal in ability as measured by the Thorndike Intelligence Examination for College Freshmen. The results indicate "that the probation student who is capable of profiting by assistance will reach his level of academic performance more quickly with assistance than he would through his own efforts."—P. G. Corby (Psychological Corporation).

3584. Wilson, J. L. *The occupations of graduates of the University of Kentucky compared with their undergraduate choices of occupations and their parents' occupations.* *Kentucky Person. Bull.*, 1933, 7.—Comparing the occupations of 359 men and 229 women who graduated between 1927 and 1931 with their first and second choices of occupation made at entrance to college, it was found that 59.4% of the

men and 57.9% of the women entered the occupation of their first choice, and 66.7% of the men and 68.9% of the women entered occupations agreeing with either their first or second choice. Three quarters of the men graduates whose parents were also graduates of the University of Kentucky did not enter the same field of occupation as their parents. The author points out the significance of this fact in regard to the function of the University in preparing the youth for a new start in life.—P. Seckler (Clark).

3585. Wilson, J. L., & Miner, J. B. Training in relation to occupations followed by alumni of the University of Kentucky. *Kentucky Person. Bull.*, 1933, 7.—Achievements and the use of training received were studied in an attempt to evaluate the accomplishments of the institution. Questions of occupational distribution, advanced study, and present geographical location were analyzed for a large number of graduates of the University from 1869 through 1931. Statistics concerning the number of graduates who have continued for further degrees, the number of community leaders produced, special honors awarded, research workers, publications, and the geographical distribution of the alumni are presented. The study indicates that most of these alumni have gone into occupations for which their professional training directly prepared them.—P. Seckler (Clark).

[See also abstracts 3417, 3435, 3503, 3505, 3508, 3586, 3596.]

BIOMETRY AND STATISTICS

3586. Yntema, T. O. Some comments on materials for teaching statistics. *Proc. Amer. Statist. Assn.*, 1933, 28, 15-19.—The problems of textbooks and prerequisites are discussed briefly, and arguments are put forward against the consolidation of beginning statistical instruction in the mathematics department. Careless errors on the part of textbook writers are described. Recommendations are made for standardized symbols and notation.—E. B. Greene (Michigan).

[See also abstract 3599.]

MENTAL TESTS

3587. Beckman, R. O. Ascendancy-submission test—revised. *Personnel J.*, 1933, 11, 387-392.—The Allport test of ascendancy-submission has been revised for business use by the adoption of business terminology, elimination of undiagnostic items, and revision of weighting after an item analysis. Methods used in improving the internal consistency of the test are described. Tentative norms are given, based on data from 350 adult men.—(Courtesy *Personnel J.*)

3588. Bernreuter, R. G. Validity of the personality inventory. *Personnel J.*, 1933, 11, 383-386.—Twenty-four determinations of the split-half reliability of the four scales of the Personality Inventory averaged .86, the emotional stability and dominance-submission scales showing the highest reliability. The validity of the scales in predicting scores on Thurstone's neurotic inventory, Allport's

ascendancy-submission reaction study, Laird's C2 introversion-extroversion test and the author's self-sufficiency test is very high, the lowest coefficient being .84 and the most frequently found values approximating 1.00. Correlations ranging between .56 and .67 were obtained with self-ratings of admittedly low reliability. Experiments are reported which tend to refute three common criticisms: that scores are due to chance; that they are invalidated by a tendency to give answers assumed to be socially approved; and that they are warped by the subject's desire to be other than he really is.—(Courtesy *Personnel J.*)

3589. Bradbury, D. E. An application of the Descoeudres performance test to fifty-seven American-born four- and five-year-old children. *Child Development*, 1933, 4, 79-89.—Certain performance tests adapted from Descoeudres were given to 29 four-year-old and 28 five-year-old nursery school children. Detailed descriptions, directions for giving, Spearman-Brown reliability coefficients, tables of mean scores with their standard deviation for each age group, as well as intercorrelations are given for each of the 20 tests. "In general, the mean number of correct placements increases with age and the mean time and errors decrease with age on these tests. . . . The relationship between mental age on the Stanford-Binet and the composite T-score based on all the tests was $.56 \pm .08$."—F. D. McTeer (Detroit City College).

3590. Crane, H. W. The necessity of psychometric tests in the study of maladjustment. *J. Appl. Psychol.*, 1931, 15, 304-309.—A case history with detailed discussion of test scores and their interpretation is presented to show the value of thorough testing in diagnosis of maladjustment cases.—P. G. Corby (Psychological Corporation).

3591. Dubois, P. H. A speed factor in mental tests. *Arch. of Psychol.*, 1932, No. 141. Pp. 38.—This experiment seeks to discover a common factor of mental speed on a single level of difficulty. 139 adult subjects of the same sex, race, and educational status were given five speed tests, two level tests and two tests in which speed and level were not clearly separated. Evidence for the existence of a factor common to the speed tests but not affecting the level tests to any great extent was found in the high average intercorrelations of the speed tests compared with the low average correlations between speed tests and level tests and in other factors. A bibliography is appended.—E. M. Achilles (Columbia).

3592. Edda, J. H. The measurement of verbal and non-verbal abilities. *Peabody Coll. Contrib. Educ.*, 1930, No. 75. Pp. 34.—The subjects were 53 college students and 140 high school students who were given five tests chosen to measure verbal ability and five to measure non-verbal ability. The Spearman and the Kelley techniques for testing differentiable mental abilities were both applied to the data. Results showed very little in common between the two sets of tests, with no common factor cutting across

both abilities. Mental ability, as measured by the Otis S.A., correlated higher with verbal than it did with non-verbal ability. Scholastic records showed equal relationship with the verbal and the non-verbal tests. A bibliography of 69 titles is given.—*J. H. Edds* (Cumberland Gap, Tenn.)

3593. Foucault, M. *La mesure de l'intelligence chez les écoliers.* (The measurement of the intelligence of students.) Paris: Delagrave, 1933. Pp. 137.—The Binet-Simon method is a metric scale applicable to the measurement of the development of intelligence in young children, and is valuable up to ten years. The author sought a method which bore upon intelligence in as direct a fashion as possible, and which measured not only the developmental and intellectual level, but also aptitude. This method ought also to be applicable to students of all ages up to the twentieth year. This scale comprises five tests, each containing ten judgments of relation. The first is entitled: uses of things; the second, genus-species; the third, contraries; the fourth, the part and the whole; the fifth, analogies. The second part consists of five sentences to complete (with missing words). The author gives precise indications as to how to score and evaluate these tests, and furnishes tables of norms and age scales. He then examines the influence of sex and social position upon success on the test, and correlates scores with the teacher's estimate of intelligence and with school marks.—*Math. H. Piéron* (Sorbonne).

3594. Medrow, W. *Eignungsfeststellung bei Auftrags erledigung.* (Adaptability indicated by following instructions.) *Indus. Psychotechn.*, 1933, 10, 52-57.—Medrow constructed a form-board test for carrying out instructions. He believes that the methods and attitude with which a subject carries out a series of commands in connection with this board indicate much about his personality, speed of work, comprehension, concentration, attention, insight, ability to make plans, sense of form, precision, reliability, and thoroughness in performing a task.—*C. Burri* (Chicago).

3595. Sherman, M., & Key, C. B. *The intelligence of isolated mountain children.* *Child Development*, 1932, 3, 279-290.—"The communities studied were four hollows located approximately one hundred miles west of Washington, D. C., in the Blue Ridge Mountains and a small village at the base of the Blue Ridge about the same distance from Washington to the southwest. . . . The Hollows were settled in the pre-colonial period by English and Scotch-Irish immigrants. . . . Intelligence tests were given to more than half of the children" of the five communities. "Nine tests were used: the Stanford-Binet; the National Intelligence Test, Scale B, Form 2; Pintner-Cunningham Primary Mental Test. For performance tests the following were employed: Manikin, Seguin Form Board, Mare and Foal, Healy Puzzle 'A,' the Knox Cube Test, . . . and Goodenough's Drawing of a Man. . . . The results of the intelligence tests of mountain children living in varying degrees of isolation appear to corroborate

the belief . . . that the expression of intelligence as measured by standardized tests, depends . . . upon the opportunities to gather information and upon the requirements made upon the individual by his environment. Since the ancestry of the children of all the Hollows came from the same stock, the claim cannot be made that some of these mountain people are 'degenerate' and therefore their children are expected to be retarded intellectually. . . . Furthermore, . . . the young children of the various Hollows do not differ greatly in intelligence, whereas great differences are found between the older children of the different Hollows. The only plausible explanation of the increasing difference with increasing age is that children develop only as the environment demands development. . . . Finally, . . . a careful study of the conflicts of the children of the different communities has shown that there is a direct relationship between conflicts and the development of intelligence as shown by tests, whether or not the relationship is causal. . . . The intelligence of the children also is highest in the communities highest in the scale of social development and lowest in the communities of lowest social development."—*W. McTeer* (Detroit City College).

3596. Sorenson, H. *Adult abilities in extension classes; a psychological study.* Minneapolis: Univ. of Minnesota Press, 1933. Pp. vi + 100. \$1.00.—The Minnesota College Aptitude Test and the Minnesota Reading Examination, Form A, were administered to some 5,500 extension students of the university, who were also asked to complete a questionnaire. The analysis of the material thus obtained is given in detail. In general, the study reveals that "adult education is operating as an equalizing agent in that it disregards the social-economic factor more than do the other types of higher education"; that "a favorable selection is occurring for purposes of college instruction"; that "extension students have an ability that is virtually equivalent to the ability of College of Education juniors and seniors"; that "adult education . . . selects the more capable of the normally out-of-school individuals"; and that "adult education probably should be more sensitive to individual differences than is education at any other level."—*O. L. Harvey* (Boston).

3597. Tryon, C., & Jones, H. E. *The relationship between "speed" and "altitude."* *J. Exper. Psychol.*, 1933, 16, 98-114.—Speed tests were given under conditions which involved the exposure on a screen of simple narrative material, the exposure times being experimentally varied by means of a projection apparatus. Altitude, or the difficulty level attained in a series of problems of increasing difficulty without time restrictions, was measured by scores obtained through the use of the completion elements of Thorndike's CAVD tests. In a group of 116 college students speed of mental processes was a negligible factor in determining the correlations between the test of altitude and the tests given under widely varying time restrictions. Mental ability is not contingent upon the speed of mental processes. Speed and

altitude do not involve a marked community of function.—*S. Renshaw* (Ohio State).

3598. Turney, A. H. A study of the reliability of judgments in relation to the certainty of the judgments, to the interval between judgments, and to the number of subjects judged. *J. Appl. Psychol.*, 1931, 15, 259-272.—Analysis of ratings of pupils by 19 teachers indicates that ability to rate others reliably is not greatly affected by the number of cases or the time interval between ratings. Degrees of certainty expressed by the rater are not a valid criterion of the reliability of the judgments expressed.—*P. G. Corby* (Psychological Corporation).

3599. Weiss, L. A. Rating scales with special references to the field of child development. *Psychol. Bull.*, 1933, 30, 185-208.—A review of 131 titles prepared as a critical guide to the worker who finds he must use some rating scale technique. Classification and comparison are made of many types: rankings; simple scoring scales, as paired-comparisons, multiple-choice, etc.; weighted scoring scales, as point scales, preferences, man-to-man, etc. Aids to the objectifying of tests are classified. Uses of rating scales in child research fields are suggested.—*J. F. Dashiell* (North Carolina).

[See also abstracts 3378, 3391, 3466, 3481, 3521, 3574.]

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